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1917

CALENDAR-1917

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Part II

GAZETTEER OF THE UNITED STATES
AND NON-CONTIGUOUS TERRITORIES

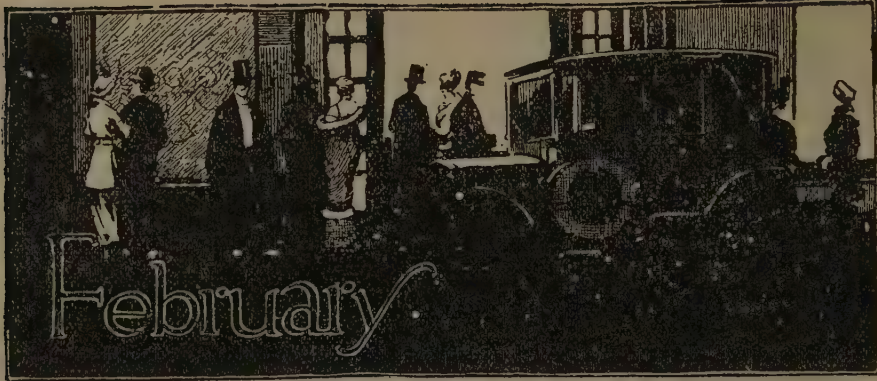
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MOON'S PHASES				MOON'S SIGNS	LATITUDE			LATITUDE			LATITUDE		
8. FRANCISCO		NEW YORK			Of Boston; New England, N. York State, S. Mich., Wisconsin, Iowa, Wyo. and Oregon			Of New York City; Philadel'a, Conn. New Jersey, Pa., Ohio, Indiana, Illinois, Neb. and Cal.			Of Charleston; N. and S. Car., Ga., Ala., Miss., Ark., N. La. and Texas, S. Ariz. and Cal.		
D. H. M.		D. H. M.											
7 11 42 A.		8 2 42 M.	8 1 42 M.										
16 3 42 M.		16 6 42 M.	16 5 42 M.										
22 11 40 A.		23 2 40 M.	23 1 40 M.										
29 5 1 A.		29 8 1 A.	29 7 1 A.										
D. M.	D. W.	Historical Events.			Sun rises	Sun sets	Moon sets	Sun rises	Sun sets	Moon sets	Sun rises	Sun sets	Moon sets
H. M.				H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
1 M		♂ ♀ ☾. Circumcision		♂	7 30	4 38	1 9	7 24	4 43	1 6	7 35	5	0 56
2 Tu		♂ gr. elong. E., 19° 22'		♂	7 30	4 39	2 18	7 25	4 44	2 14	7 35	5	6 1 58
3 W		☾ in perihelion		♂	7 30	4 40	3 25	7 25	4 45	3 20	7 35	7	3 0
4 Th		Battle of Hankow, 1912		♂	7 30	4 41	4 29	7 25	4 46	4 23	7 35	7	4 0
5 Fr		Str. Oklahoma sank, 1914		♂	7 30	4 42	5 28	7 25	4 47	5 22	7 35	8	4 57
6 Sa		Epiphany.		♂	7 30	4 43	6 20	7 25	4 48	6 14	7 45	9	5 49
1. 1st Sunday after Epiphany. Luke 2 Day's Length, 9h. 14m.—9h. 24m.—10h. 6m.													
7 S	☾	♂ in ♏		♂	7 30	4 44	7 5	7 25	4 49	6 59	7 45	10	6 36
8 M		8th. ♂ ♀ ☾: ☾ in ♏		♂	7 29	4 45	rises	7 25	4 50	rises	7 45	11	rises
9 Tu		♂ ☾: ☾ stationary		♂	7 29	4 46	6 15	7 24	4 51	6 19	7 45	11	6 36
10 W		☾ in apogee		♂	7 29	4 47	7 16	7 24	4 52	7 19	7 45	12	7 32
11 Th		Anglo-American Treaty, 1897		♂	7 29	4 48	8 17	7 24	4 53	8 19	7 45	13	8 27
12 Fr		☾ in perihelion		♂	7 28	4 49	9 17	7 24	4 54	9 18	7 35	14	9 21
13 Sa		♂ ☾ ♂. Huerta died, 1916		♂	7 28	4 50	10 18	7 23	4 55	10 17	7 35	15	10 16
2. 2d Sunday after Epiphany. John 2 Day's Length, 9h. 23m.—9h. 33m.—10h. 13m.													
14 S		Earthquake in Jamaica, 1907		♂	7 28	4 51	11 21	7 23	4 56	11 19	7 35	16	11 13
15 M		Submarine E-2 Explosion, 1916		♂	7 27	4 53	morn	7 23	4 57	morn	7 35	17	morn
16 Tu	☾	16th. Labouchere d., 1912		♂	7 27	4 54	0 26	7 22	4 58	0 23	7 35	18	0 12
17 W		☾ ☾ ☾: 8 h ☾		♂	7 26	4 55	1 33	7 22	5 0	1 29	7 25	19	1 13
18 Th		German Empire procl'd, 1871		♂	7 26	4 56	2 42	7 21	5 1	2 37	7 25	19	2 16
19 Fr		♂ ☾ ☾ inferior		♂	7 25	4 57	3 52	7 20	5 2	3 46	7 25	20	3 22
20 Sa		Chicago Crib Disaster, 1909		♂	7 24	4 59	4 59	7 20	5 3	4 53	7 15	21	4 27
3. 3d Sunday after Epiphany. Matt. 8 Day's Length, 9h. 36m.—9h. 45m.—10h. 21m.													
21 S		♂ ☾ ☾. Elisha Gray d., 1901		♂	7 24	5 0	5 59	7 19	5 4	5 53	7 15	22	5 28
22 M		♂ ☾ ☾: ☾ in ♏: ☾ gr. hel. lat. N.		♂	7 23	5 1	6 48	7 19	5 5	6 43	7 15	23	6 22
23 Tu		♂ 23d. ☾ in perigee		♂	7 22	5 2	sets	7 18	5 7	sets	7 05	24	sets
24 W	☾	♂ ☾ ☾		♂	7 22	5 4	7 9	7 17	5 8	7 11	7 05	25	7 20
25 Th		Conversion of St. Paul		♂	7 21	5 5	8 26	7 17	5 9	8 27	6 59	26	8 30
26 Fr		♂ gr. hel. lat. S.		♂	7 21	5 6	9 42	7 16	5 10	9 41	6 59	27	9 38
27 Sa		James G. Blaine died, 1903		♂	7 20	5 7	10 56	7 15	5 11	10 54	6 58	28	10 45
4. 4th Sunday after Epiphany. Matt. 8 Day's Length, 9h. 51m.—9h. 59m.—10h. 81m.													
28 S	☾	☾ in ♏		♂	7 18	5 9	morn	7 14	5 13	morn	6 58	29	11 48
29 M		29th. ♂ ♀ ☾		♂	7 17	5 10	0 6	7 13	5 14	0 2	6 57	30	morn
30 Tu		☾ stationary: ♂ ☾ ☾		♂	7 16	5 11	1 15	7 13	5 15	1 10	6 57	31	0 51
31 W		Battle of Borjimow, 1915		♂	7 15	5 13	2 21	7 12	5 16	2 15	6 56	32	1 53



MOON'S PHASES

	S. FRANCISCO	NEW YORK	CHICAGO
D. H. M.	D. H. M.	D. H. M.	D. H. M.
14 5 53 A.	14 8 53 A.	14 7 53 A.	
21 10 9 M.	21 1 9 A.	21 0 9 A.	
28 8 44 M.	28 11 44 M.	28 10 44 M.	

MOON'S SIGNS

LATITUDE
Of Boston; New
England, N. York
State, So. Mich.,
Wisconsin, Iowa,
Wyo. and Oregon

LATITUDE
Of New York City;
Philadel'a, Conn.,
New Jersey, Pa.,
Ohio, Indiana, Illi-
nois, Neb. and Cal.

LATITUDE
Of Charleston; N.
and S. Car., Ga.,
Ala., Miss., Ark.,
N. La. and Texas,
S. Ariz. and Cal.

Historical Events.

D. M.	D. W.	Historical Events.	Sun rises H. M.	Sun sets H. M.	Moon sets H. M.	Sun rises H. M.	Sun sets H. M.	Moon sets H. M.	Sun rises H. M.	Sun sets H. M.	Moon sets H. M.
1	Th	King Carlos assassinated, 1908	7 14	5 14	3 22	7 11	5 17	3 16	6 55	5 33	2 51
2	Fr	Purification—Candlemas	7 13	5 15	4 17	7 10	5 19	4 11	6 55	5 34	3 45
3	Sa	Turk.-Balk. War resumed, 1913	7 12	5 17	5 4	7 9	5 20	4 58	6 54	5 35	4 33

6. Septuagesima Sunday. Matt. 20 Day's Length, 10h. 7m.—10h. 18m.—10h. 42m.

4	S	♄ in ♏	7 11	5 18	5 43	7 8	5 21	5 38	6 54	5 36	5 16
5	M	♄ in ♏	7 10	5 19	6 16	7 7	5 22	6 11	6 53	5 36	5 53
6	Tu	♄ in apogee	7 9	5 20	rises	7 6	5 24	rises	6 52	5 37	rises
7	W	Fire at Baltimore, 1904	7 8	5 22	6 9	7 5	5 25	6 11	6 51	5 38	6 20
8	Th	♄ in ♏	7 7	5 23	7 11	7 3	5 26	7 12	6 50	5 39	7 16
9	Fr	Weather Bureau estab., 1870	7 5	5 24	8 12	7 2	5 27	8 12	6 49	5 40	8 12
10	Sa	Str. Gen. Chanzy lost, 1910	7 4	5 26	9 13	7 1	5 28	9 12	6 49	5 41	9 7

6. Sexagesima Sunday. Luke 8 Day's Length, 10h. 24m.—10h. 30m.—10h. 54m.

11	S	Thomas A. Edison born, 1847	7 3	5 27	10 16	7 0	5 30	10 13	6 48	5 42	10 4
12	M	♄ gr. elong. W., 26° 3'	7 1	5 28	11 21	6 59	5 31	11 17	6 47	5 43	11 3
13	Tu	Alphonse Bertillon died, 1914	7 0	5 30	morn	6 57	5 32	morn	6 46	5 44	morn
14	W	♄ in ♏	6 58	5 31	0 28	6 56	5 33	0 23	6 45	5 45	0 4
15	Th	St. Valentine	6 57	5 32	1 36	6 55	5 35	1 30	6 44	5 45	1 7
16	Fr	M. A. Hanna died, 1904	6 56	5 33	2 42	6 53	5 36	2 36	6 43	5 46	2 11
17	Sa	Jay Cooke died, 1905	6 55	5 35	3 42	6 52	5 37	3 36	6 42	5 47	3 11

7. Quinquagesima Sunday. Luke 18 Day's Length, 10h. 48m.—10h. 47m.—11h. 7m.

18	S	♄ in ♏. Madero deposed, 1913	6 53	5 36	4 34	6 51	5 38	4 28	6 41	5 48	4 6
19	M	♄ in ♏. Fire in Tokio, 1913	6 52	5 37	5 19	6 49	5 39	5 14	6 40	5 49	4 56
20	Tu	♄ in perihelion: ♄ in perigee	6 50	5 38	5 58	6 48	5 41	5 55	6 39	5 50	5 42
21	W	♄ in ♏	6 49	5 40	sets	6 46	5 42	sets	6 38	5 51	sets
22	Th	♄ in ♏	6 47	5 41	7 14	6 45	5 43	7 14	6 37	5 51	7 14
23	Fr	Madero killed, 1913	6 46	5 42	8 31	6 44	5 44	8 29	6 36	5 52	8 24
24	Sa	♄ in ♏. St. Matthias	6 44	5 43	9 46	6 42	5 45	9 43	6 34	5 53	9 32

8. 1st Sunday in Lent. Matt. 4 Day's Length, 11h. 2m.—11h. 6m.—11h. 21m.

25	S	♄ in aphelion: ♄ in ♏	6 43	5 45	10 58	6 41	5 47	10 54	6 33	5 54	10 37
26	M	♄ gr. libration W.	6 41	5 46	morn	6 39	5 48	morn	6 32	5 55	11 42
27	Tu	Rebels take Juarez, 1912	6 40	5 47	0 8	6 38	5 49	0 3	6 31	5 56	morn
28	W	♄ in ♏	6 38	5 48	1 13	6 36	5 50	1 7	6 30	5 56	0 43



MOON'S PHASES									MOON'S SIGNS
S. FRANCISCO			NEW YORK			CHICAGO			
D.	H.	M.	D.	H.	M.	D.	H.	M.	
8	1	58 A.	8	4	58 A.	8	3	58 A.	
16	4	33 M.	16	7	33 M.	16	6	33 M.	
22	8	5 A.	22	11	5 A.	22	10	5 A.	
30	2	36 M.	30	5	36 M.	30	4	36 M.	
LATITUDE									
Of Boston; New England, N. York State, So. Mich., Wisconsin, Iowa, Wyo. and Oregon									
Of New York City; Philadel'a, Conn. New Jersey, Pa., Ohio, Indiana, Illinois, Neb. and Cal.									
Of Charleston; N. and S. Car., Ga., Ala., Miss., Ark., N. La. and Texas, S. Ariz. and Cal.									
Sun rises			Sun sets			Moon sets			
H.	M.	H.	M.	H.	M.	H.	M.	H.	
6	36	5	50	2	11	6	35	5	51
6	35	5	51	3	0	6	33	5	52
6	33	5	52	3	42	6	32	5	53
9. 2d Sunday in Lent. Matt. 15 Day's Length, 11h. 21m.—11h. 24m.—11h. 84m.									
4	S	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	
5	M	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	
6	Tu	Geo. W. Vanderbilt died, 1914	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	
7	W	Fire in Yokohama, 1913	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	
8	Th	8th. J. Schaefer d., 1910	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	
9	Fr	St. Louis Clubhouse fire, 1914	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	
10	Sa	Battle of Neuve Chapelle, 1915	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	
10. 3d Sunday in Lent. Luke 11 Day's Length, 11h. 41m.—11h. 43m.—11h. 49m.									
11	S	Cuba ratifies Treaty. 1903	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	
12	M	Geo. Westinghouse died, 1914	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	
13	Tu	Benjamin Harrison died, 1902	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	
14	W	♂ gr. libration E.	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	
15	Th	Earthquake in Japan, 1914	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	
16	Fr	16th. J. Madison b. 1752	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	
17	Sa	♂ in ♀. St. Patrick	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	
11. 4th Sunday in Lent. John 6 Day's Length, 12h. 2m.—12h. 2m.—12h. 3m.									
18	S	♂ ♀ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	
19	M	William J. Bryan born, 1860	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	
20	Tu	♂ enters ♀. Spring begins	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	
21	W	♂ in perigee	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	
22	Th	22d. ♂ ♀ ♀: ♂ ♀ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	
23	Fr	Cyclone in Omaha, 1913	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	
24	Sa	♂ ♀ ♂. Jules Verne d., 1905	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	
12. 5th Sunday in Lent. John 8 Day's Length, 12h. 21m.—12h. 21m.—12h. 17m.									
25	S	♂ ♀ ♀. Annunciation	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	
26	M	♀ gr. hel. lat. S.	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	
27	Tu	♂ gr. libration W.	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	
28	W	Steamer Falaba sunk, 1915	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	
29	Th	♂ ♀ ♀ superior	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	
30	Fr	30th. ♂ in ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	
31	Sa	♂ ♀ ♂: ♂ ♀ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	♂ ♀	



MOON'S PHASES

8. FRANCISCO	NEW YORK	CHICAGO
D. H. M.	D. H. M.	D. H. M.
7 5 49 M.	7 8 49 M.	7 7 49 M.
14 0 12 A.	14 3 12 A.	14 2 12 A.
21 6 1 M.	21 9 1 M.	21 8 1 M.
28 9 22 A.	29 0 22 M.	28 11 22 A.

MOON'S SIGNS

Of Boston; New England, N. York State, So. Mich., Wisconsin, Iowa, Wyo. and Oregon

Of New York City; Philadel'a, Conn. New Jersey, Pa., Ohio, Indiana, Illinois, Neb. and Cal.

Of Charleston; N. and S. Car., Ga., Ala., Miss., Ark., N. La. and Texas, S. Ariz. and Cal.

D. D.	Historical Events.
M. W.	

MOON'S SIGNS

Sun rises H. M. H. M. Sun sets H. M. H. M. Moon sets H. M. H. M.

Sun rises H. M. H. M. Sun sets H. M. H. M. Moon sets H. M. H. M.

Sun rises H. M. H. M. Sun sets H. M. H. M. Moon sets H. M. H. M.

13. Palm Sunday. Matt. 27 Day's Length, 12h. 42m.—12h. 40m.—12h. 31m.

1 S	♈ ♀. Palm Sunday	♈	5 43	6 25	2 48	5 44	6 24	2 44	5 49	6 20	2 27
2 M	♈ in apogee	♈	5 42	6 26	3 15	5 43	6 25	3 12	5 47	6 20	3 0
3 Tu	Flood at Memphis, 1912	♈	5 40	6 28	3 39	5 41	6 26	3 37	5 46	6 21	3 29
4 W	Dr. Isaac Funk died, 1912	♈	5 38	6 29	4 1	5 39	6 27	4 0	5 45	6 22	3 57
5 Th	♈ in ♎	♈	5 36	6 30	4 22	5 38	6 28	4 22	5 44	6 23	4 23
6 Fr	♈ Good Friday	♈	5 35	6 31	4 44	5 36	6 29	4 45	5 42	6 23	4 51
7 Sa	♈ 7th. P.T., Barnum d. 1891	♈	5 33	6 31	rises	5 35	6 30	rises	5 41	6 24	rises

14. Easter Sunday. John 20 Day's Length, 13h. 2m.—12h. 59m.—12h. 45m.

8 S	♈ Easter Sunday	♈	5 31	6 33	8 10	5 33	6 32	8 6	5 40	6 25	7 50
9 M	♈ gr. libration E.	♈	5 30	6 34	9 18	5 31	6 33	9 13	5 38	6 25	8 52
10 Tu	♈ in perihelion	♈	5 28	6 35	10 24	5 30	6 34	10 18	5 37	6 26	9 55
11 W	Kronpr. Wilhelm interned, 1915	♈	5 26	6 36	11 26	5 28	6 35	11 20	5 36	6 27	10 55
12 Th	♈ stationary	♈	5 25	6 38	morn	5 27	6 36	morn	5 35	6 28	11 52
13 Fr	♈ in ♎	♈	5 23	6 39	0 22	5 25	6 37	0 16	5 33	6 28	morn
14 Sa	♈ 14th. ♈ ♎	♈	5 21	6 40	1 10	5 24	6 38	1 5	5 32	6 29	0 43

15. Low Sunday. John 20 Day's Length, 13h. 21m.—13h. 17m.—12h. 59m.

15 S	Steamer Titanic sank, 1912	♈	5 20	6 41	1 50	5 22	6 39	1 46	5 31	6 30	1 28
16 M	♈ ♈ ♈ ♈	♈	5 18	6 42	2 24	5 20	6 40	2 21	5 30	6 30	2 9
17 Tu	♈ in perigee	♈	5 17	6 43	2 54	5 19	6 41	2 52	5 29	6 31	2 46
18 W	Earthq. in San Francisco, 1906	♈	5 15	6 44	3 20	5 17	6 42	3 20	5 27	6 32	3 19
19 Th	Admiral A. Taylor died, 1891	♈	5 14	6 45	3 46	5 16	6 43	3 47	5 26	6 32	3 51
20 Fr	♈ gr. hel. lat. N.: ♈ ♈	♈	5 12	6 46	4 14	5 14	6 44	4 16	5 25	6 33	4 26
21 Sa	♈ 21st. ♈ ♈	♈	5 10	6 48	sets	5 13	6 45	sets	5 24	6 34	sets

16. 2d Sunday after Easter. John 10 Day's Length, 13h. 40m.—13h. 35m.—13h. 12m.

22 S	♈ ♈ ♈ ♈ ♈	♈	5 9	6 49	8 34	5 11	6 46	8 29	5 23	6 35	8 8
23 M	St. George. ♈ gr. libration W.	♈	5 7	6 50	9 41	5 10	6 47	9 35	5 22	6 35	9 12
24 Tu	♈ gr. elong. E., 20° 22'	♈	5 6	6 51	10 40	5 9	6 48	10 34	5 21	6 36	10 9
25 W	St. Mark	♈	5 4	6 52	11 31	5 7	6 49	11 25	5 20	6 37	11 1
26 Th	♈ ♈ superior: ♈ in ♏	♈	5 3	6 53	morn	5 6	6 50	morn	5 19	6 37	11 46
27 Fr	♈ ♈ ♈	♈	5 1	6 54	0 13	5 4	6 51	0 8	5 17	6 38	morn
28 Sa	♈ 28th—29th. ♈ ♈	♈	5 0	6 55	0 47	5 3	6 52	0 42	5 16	6 39	0 24

17. 3d Sunday after Easter. John 16 Day's Length, 13h. 57m.—13h. 51m.—13h. 25m.

29 S	♈ in apogee	♈	4 59	6 56	1 16	5 2	6 53	1 12	5 15	6 40	0 58
30 M	St. Louis Expos. opened, 1904	♈	4 57	6 58	1 41	5 0	6 54	1 38	5 14	6 41	1 29



MOON'S PHASES

	S. FRANCISCO D. H. M.	NEW YORK D. H. M.	CHICAGO D. H. M.	MOON'S SIGNS	LATITUDE Of Boston; New England, N. York State, So. Mich., Wisconsin, Iowa, Wyo. and Oregon	LATITUDE Of New York City; Philadel'a, Conn. New Jersey, Pa., Ohio, Indiana, Illi- nois, Neb. and Cal.	LATITUDE Of Charleston; N. and S. Car., Ga., Ala., Miss., Ark., N. La. and Texas, S. Ariz. and Cal.
6	6 43 A.	6 9 43 A.	6 8 43 A.				
13	5 48 A.	13 8 48 A.	13 7 43 A.				
20	4 47 A.	20 7 47 A.	20 6 47 A.				
28	3 33 A.	28 6 33 A.	28 5 33 A.				

D. M.	D. W.	Historical Events.	Sun rises H. M.	Sun sets H. M.	Moon sets H. M.	Sun rises H. M.	Sun sets H. M.	Moon sets H. M.	Sun rises H. M.	Sun sets H. M.	Moon sets H. M.
1	Tu	St. Philip and St. James	4 56	6 59	2 4	4 59	6 55	2 3	5 13	6 41	1 58
2	W	Russ. defeated in Galicia, 1915	4 54	7 0	2 26	4 58	6 56	2 26	5 12	6 42	2 25
3	Th	Daniel E. Sickles died, 1914	4 53	7 1	2 48	4 57	6 57	2 49	5 11	6 43	2 53
4	Fr	Fire in Valparaiso, 1914	4 52	7 2	3 10	4 55	6 58	3 12	5 10	6 43	3 21
5	Sa	♂ ♀ ♀: ♀ stationary	4 50	7 3	3 35	4 54	7 0	3 38	5 9	6 44	3 52

18. 4th Sunday after Easter. John 16 Day's Length, 14h. 16m.—14h. 8m.—13h. 86m.

6	S	♂ 6th. ♀ gr. libration E.	4 49	7 4	4 5	4 53	7 1	4 9	5 9	6 45	4 28
7	M	♂ Str. Lusitania sunk, 1915	4 48	7 5	rises	4 52	7 2	rises	5 8	6 45	rises
8	Tu	Germans take Libau, 1915	4 47	7 6	9 18	4 51	7 3	9 12	5 7	6 46	8 47
9	W	♂ ♀ ♀	4 46	7 8	10 17	4 49	7 4	10 11	5 6	6 47	9 47
10	Th	♂ in ♀. Lillian Nordica d, 1914	4 44	7 9	11 7	4 48	7 5	11 2	5 5	6 47	10 39
11	Fr	Typhoon in Philippines, 1913	4 43	7 10	11 49	4 47	7 6	11 44	5 4	6 48	11 26
12	Sa	Battleship Goliath sunk, 1915	4 42	7 11	morn	4 46	7 7	morn	5 3	6 49	morn

19. Rogation Sunday. John 16 Day's Length, 14h. 81m.—14h. 28m.—13h. 47m.

13	S	♂ 13th. ♀ in perigee	4 41	7 12	0 24	4 45	7 8	0 21	5 3	6 50	0 7
14	M	♂ ♀ ♀: ♀ in ♀	4 40	7 13	0 55	4 44	7 9	0 53	5 2	6 51	0 45
15	Tu	Standard Oil Co. dissolved, 1912	4 39	7 14	1 23	4 43	7 10	1 22	5 1	6 51	1 20
16	W	♂ ♀ ♀ inferior	4 38	7 15	1 49	4 42	7 11	1 49	5 0	6 52	1 52
17	Th	Ascension Day	4 37	7 16	2 15	4 41	7 11	2 17	5 0	6 53	2 25
18	Fr	Battleship Texas launched, 1912	4 36	7 17	2 43	4 40	7 12	2 46	4 59	6 53	3 0
19	Sa	♂ ♀ ♀. Gladstone died, 1898	4 35	7 18	3 15	4 40	7 13	3 19	4 59	6 54	3 38

20. Sunday after Ascension. John 15-16 Day's Length, 14h. 45m.—14h. 35m.—13h. 57m.

20	S	♂ 20th. ♀ ♀ ♀: ♀ ♀ ♀	4 34	7 19	3 53	4 39	7 14	3 58	4 58	6 55	4 21
21	M	♂ ♀ ♀: ♀ in ♀	4 33	7 20	sets	4 38	7 15	sets	4 57	6 56	sets
22	Tu	U. S. and Cuban Treaty, 1903	4 32	7 21	9 22	4 37	7 16	9 16	4 57	6 56	8 51
23	W	Italy decl. War on Austria, 1915	4 32	7 22	10 7	4 36	7 17	10 1	4 56	6 57	9 39
24	Th	♂ in apellation: ♀ ♀ ♀: ♀ in ♀	4 31	7 23	10 44	4 36	7 18	10 39	4 56	6 58	10 19
25	Fr	♂ ♀ ♀: ♀ ♀ ♀	4 30	7 24	11 15	4 35	7 19	11 11	4 55	6 58	10 55
26	Sa	Jacob A. Riis died, 1914	4 29	7 25	11 42	4 34	7 19	11 39	4 55	6 59	11 28

21. Pentecost—Whit Sunday. John 14 Day's Length, 14h. 58m.—14h. 46m.—14h. 4m.

27	S	Pentecost Sunday. ♀ in apogee	4 28	7 26	morn	4 34	7 20	morn	4 55	6 59	11 58
28	M	♂ 28th. ♀ stationary	4 28	7 26	0 6	4 33	7 21	0 4	4 54	7 0	morn
29	Tu	♂ stationary	4 27	7 27	0 28	4 32	7 22	0 27	4 54	7 1	0 25
30	W	Memorial Day	4 27	7 28	0 49	4 32	7 23	0 49	4 53	7 1	0 52
31	Th	Zeppelins raid London, 1915	4 26	7 29	1 11	4 31	7 23	1 12	4 53	7 2	1 19



MOON'S PHASES																	
S. FRANCISCO D. H. M.			NEW YORK D. H. M.			CHICAGO D. H. M.											
5	5	7 M.	5	8	7 M.	5	7	7 M.									
11	10	38 A.	12	1	38 M.	12	0	38 M.									
19	5	2 M.	19	8	2 M.	19	7	2 M.									
27	8	8 M.	27	11	8 M.	27	10	8 M.									
D.	M.	Historical Events.				MOON'S SIGNS			LATITUDE								
D.	M.					Sun rises H. M.	Sun sets H. M.	Moon sets H. M.	Sun rises H. M.	Sun sets H. M.	Moon sets H. M.	Sun rises H. M.	Sun sets H. M.	Moon sets H. M.			
1	Fr	Storm near Charleston, 1915				4	26	7 30	1 35	4	31	7 24	1 38	4	53	7 2	1 49
2	Sa	gr. libration E.				4	25	7 30	2 3	4	30	7 25	2 7	4	52	7 3	2 23
22. Trinity Sunday. John 3 Day's Length, 15h. 6m.—14h. 56m.—14h. 11m.																	
3	S	Trinity Sunday				4	25	7 31	2 37	4	30	7 26	2 42	4	52	7 3	3 3
4	M	Pretoria captured, 1900				4	24	7 32	3 17	4	30	7 26	3 22	4	52	7 4	3 47
5	Tu	5th. ♂♂♂				4	24	7 32	rises	4	29	7 27	rises	4	52	7 5	rises
6	W	Charles H. Cramp died, 1913				4	24	7 33	9 2	4	29	7 28	8 56	4	52	7 5	8 33
7	Th	♂ in ♀. Corpus Christi				4	23	7 34	9 48	4	29	7 28	9 43	4	51	7 5	9 23
8	Fr	♂♂♂: ♀ in perigee: ♂♂♂				4	23	7 34	10 26	4	29	7 29	10 22	4	51	7 6	10 7
9	Sa	Charles Dickens died, 1870				4	23	7 35	10 58	4	28	7 29	10 55	4	51	7 6	10 46
28. 1st Sunday after Trinity. Luke 16 Day's Length, 15h. 18m.—15h. 2m.—14h. 16m.																	
10	S	♂♂♂. Edw. E. Hale d., 1909				4	23	7 36	11 26	4	28	7 30	11 25	4	51	7 7	11 21
11	M	♂♂♂. St. Barnabas				4	22	7 36	11 52	4	28	7 31	11 52	4	51	7 7	11 53
12	Tu	12th. Rye-house Plot, 1683				4	22	7 37	morn	4	28	7 31	morn	4	51	7 8	morn
13	W	♂ gr. hel. lat. S.				4	22	7 37	0 18	4	28	7 31	0 19	4	51	7 8	0 26
14	Th	Adlai E. Stevenson died, 1914				4	22	7 38	0 46	4	28	7 32	0 49	4	51	7 8	1 1
15	Fr	Violent Storm in Paris, 1914				4	22	7 38	1 17	4	28	7 32	1 21	4	51	7 9	1 38
16	Sa	♂♂♂. Storm in Missouri, 1912				4	22	7 38	1 51	4	28	7 33	1 56	4	51	7 9	2 17
24. 2d Sunday after Trinity. Luke 14 Day's Length, 15h. 17m.—15h. 5m.—14h. 19m.																	
17	S	♂♂♂: ♂♂♂				4	22	7 39	2 31	4	28	7 33	2 37	4	51	7 10	3 1
18	M	Battle of Waterloo, 1815				4	22	7 39	3 18	4	28	7 33	3 24	4	51	7 10	3 51
19	Tu	19th. Gen. Turchin d. 1901				4	23	7 39	sets	4	28	7 34	sets	4	52	7 10	sets
20	W	♂♂♂: ♀ in ♀				4	23	7 40	8 43	4	28	7 34	8 38	4	52	7 11	8 17
21	Th	☉ enters ♌. Summer begins				4	23	7 40	9 17	4	29	7 34	9 13	4	52	7 11	8 55
22	Fr	♂♂♂				4	23	7 40	9 45	4	29	7 34	9 42	4	52	7 11	9 23
23	Sa	♂ in ♀				4	23	7 40	10 9	4	29	7 34	10 7	4	52	7 11	9 58
25. 3d Sunday after Trinity. Luke 15 Day's Length, 15h. 16m.—15h. 6m.—14h. 18m.																	
24	S	♀ in apogee. St. John, Bapt.				4	24	7 40	10 31	4	29	7 35	10 30	4	53	7 11	10 26
25	M	Fire at Salem, Mass., 1914				4	24	7 40	10 52	4	30	7 35	10 52	4	53	7 11	10 54
26	Tu	Earthquake in Sumatra, 1914				4	24	7 40	11 14	4	30	7 35	11 15	4	53	7 11	11 20
27	W	27th. J. Smith shot, 1844				4	25	7 40	11 37	4	30	7 35	11 39	4	54	7 12	11 45
28	Th	Archd. Ferd. assass., 1914				4	25	7 40	morn	4	31	7 35	morn	4	54	7 12	morn
29	Fr	St. Peter and St. Paul				4	25	7 40	0 2	4	31	7 35	0 5	4	54	7 12	0 20
30	Sa	gr. libration E.				4	26	7 40	0 31	4	32	7 35	0 39	4	55	7 12	0 30



July

MOON'S PHASES

S. FRANCISCO D. H. M.	NEW YORK D. H. M.	CHICAGO D. H. M.
4 1 40 A.	4 4 40 A.	4 3 40 A.
11 4 12 M.	11 7 12 M.	11 6 12 M.
18 7 0 A.	18 10 0 A.	18 9 0 A.
26 10 40 A.	27 1 40 M.	27 0 40 M.

MOON'S SIGNS

LATITUDE
Of Boston; New
England, N. York
State, So. Mich.,
Wisconsin, Iowa,
Wyo. and Oregon

LATITUDE
Of New York City;
Philadel'a, Conn.,
New Jersey, Pa.,
Ohio, Indiana, Illi-
nois, Neb. and Cal.

LATITUDE
Of Charleston; N.
and S. Car., Ga.,
Ala., Miss., Ark.,
N. La. and Texas,
S. Ariz. and Cal.

Historical Events.

Sun rises	Sun sets	Moon sets
H. M.	H. M.	H. M.

Sun rises	Sun sets	Moon sets
H. M.	H. M.	H. M.

Sun rises	Sun sets	Moon sets
H. M.	H. M.	H. M.

26. 4th Sunday after Trinity. Luke 6 Day's Length, 16h. 14m.—15h. 8m.—14h. 17m.

1 S	Steamer Armenian sunk, 1915	4 26 7 40	1 8	4 32 7 35	1 13	4 55 7 12	1 36
2 M	8 in Q. Garfield shot, 1881	4 27 7 40	1 54	4 32 7 35	2 0	4 55 7 12	2 25
3 Tu	8 in apheleon	4 27 7 40	2 49	4 33 7 34	2 55	4 56 7 12	3 22
4 W	14th. Independence Day	4 28 7 40	rises	4 33 7 34	rises	4 56 7 12	rises
5 Th	Huerta elected, 1914	4 29 7 39	8 22	4 34 7 34	8 18	4 57 7 11	8 1
6 Fr	8 9 Psi: 4 in perigee	4 29 7 39	8 57	4 35 7 34	8 54	4 57 7 11	8 43
7 Sa	8 in perihelion: 8 8 4	4 29 7 39	9 28	4 36 7 33	9 26	4 58 7 11	9 20

27. 5th Sunday after Trinity. Luke 5 Day's Length, 16h. 8m.—14h. 67m.—14h. 18m.

8 S	Rebels take Guadalajara, 1914	4 30 7 38	9 56	4 36 7 33	9 56	4 58 7 11	9 55
9 M	Seres and Kavala capt'd, 1913	4 31 7 38	10 23	4 37 7 33	10 24	4 59 7 11	10 29
10 Tu	Wyoming admitted, 1890	4 32 7 38	10 50	4 38 7 32	10 52	4 59 7 10	11 3
11 W	11th. S. Newcomb d. 1909	4 33 7 37	11 19	4 38 7 32	11 22	4 59 7 10	11 39
12 Th	8 9 Psi: superior	4 33 7 37	11 52	4 39 7 32	11 57	5 0 7 10	morn
13 Fr	4 gr. libration W.	4 34 7 36	morn	4 39 7 31	morn	5 1 7 9	0 17
14 Sa	8 12 Psi: Paul Kruger d., 1911	4 35 7 36	0 30	4 40 7 31	0 35	5 1 7 9	0 59

28. 6th Sunday after Trinity. Matt. 5 Day's Length, 14h. 59m.—14h. 49m.—14h. 7m.

15 S	9 gr. hel. lat. N.	4 36 7 35	1 15	4 41 7 30	1 21	5 2 7 9	1 47
16 M	8 9 Psi: Santiago surr., 1898	4 37 7 34	2 6	4 42 7 29	2 12	5 3 7 8	2 39
17 Tu	9 gr. hel. lat. N.: 4 in U	4 38 7 34	3 3	4 42 7 29	3 9	5 3 7 8	3 34
18 W	18th. 8 9 Psi	4 38 7 33	sets	4 43 7 28	sets	5 4 7 8	sets
19 Th	8 9 Psi: 8 12 Psi: 8 Psi	4 39 7 32	7 47	4 44 7 28	7 43	5 5 7 7	7 29
20 Fr	Pope Leo XIII. died, 1903	4 40 7 32	8 13	4 45 7 27	8 10	5 5 7 7	8 1
21 Sa	8 9 Psi: 4 in apogee	4 41 7 31	8 36	4 46 7 26	8 34	5 6 7 6	8 29

29. 7th Sunday after Trinity. Mark 8 Day's Length, 14h. 48m.—14h. 38m.—13h. 58m.

22 S	Binghamton Factory Fire, 1913	4 42 7 30	8 57	4 47 7 25	8 56	5 7 7 5	8 55
23 M	Austria Ultimatum to Serbia, 1914	4 43 7 29	9 18	4 47 7 24	9 19	5 7 7 5	9 22
24 Tu	Steamer Eastland Disaster, 1915	4 44 7 28	9 40	4 48 7 24	9 42	5 8 7 4	9 50
25 W	St. James	4 45 7 27	10 4	4 49 7 23	10 7	5 8 7 4	10 20
26 Th	Italians occupy Pelagosa, 1915	4 46 7 26	10 32	4 50 7 22	10 36	5 9 7 3	10 53
27 Fr	27th. 8 9 Psi	4 47 7 25	11 4	4 51 7 21	11 9	5 10 7 2	11 30
28 Sa	8 Psi	4 48 7 24	11 44	4 52 7 20	11 49	5 10 7 2	morn

30. 8th Sunday after Trinity. Matt. 7 Day's Length, 14h. 34m.—14h. 26m.—13h. 60m.

29 S	Austrians shell Belgrade, 1914	4 49 7 23	morn	4 53 7 19	morn	5 11 7 1	0 14
30 M	8 Psi	4 50 7 22	0 34	4 54 7 18	0 40	5 12 7 0	1 6
31 Tu	4 in Q. Jos. Hatton d., 1907	4 51 7 21	1 34	4 55 7 17	1 40	5 12 6 59	2 6



MOON'S PHASES				MOON'S SIGNS	LATITUDE			LATITUDE			LATITUDE		
					Of Boston; New England, N. York State, So. Mich., Wisconsin, Iowa, Wyo. and Oregon			Of New York City; Philadel'a, Conn., New Jersey, Pa., Ohio, Indiana, Illinois, Neb. and Cal.			Of Charleston; N. and S. Car., Ga., Ala., Miss., Ark., N. La. and Texas, S. Ariz. and Cal.		
8. FRANCISCO		NEW YORK			CHICAGO								
D. H. M.		D. H. M.			D. H. M.								
2	9 11 A.	3	0 11 M.		2	11 11 A.							
9	11 56 M.	9	2 56 A.		9	1 56 A.							
17	10 21 M.	17	1 21 A.		17	0 21 A.							
25	11 8 M.	25	2 8 A.		25	1 8 A.							
D. M.	D. W.	Historical Events.		Sun rises	Sun sets	Moon sets	Sun rises	Sun sets	Moon sets	Sun rises	Sun sets	Moon sets	
H. M.	H. M.			H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	
1	W	Ger. decl. War on Russia, 1914		♋	4 52	7 20	2 44	4 56	7 16	2 49	5 13	6 58	3 13
2	Th	2d. Elisha Gray b., 1835		♋	4 53	7 19	4 1	4 57	7 15	4 5	5 14	6 57	4 25
3	Fr	3d. ☽♋; ♄ in perigee		♋	4 54	7 18	rises	4 58	7 14	rises	5 14	6 57	rises
4	Sa	Germans capture Warsaw, 1915		♋	4 55	7 16	7 57	4 59	7 13	7 56	5 15	6 56	7 53
81. 9th Sunday after Trinity. Luke 16 Day's Length, 14h. 19m.—14h. 12m.—13h. 39m.													
5	S	Koenigin Luise sunk, 1914		♋	4 56	7 15	8 24	5 0	7 12	8 24	5 16	6 55	8 27
6	M	Austria decl. War on Russ., 1914		♋	4 57	7 14	8 52	5 1	7 10	8 54	5 16	6 54	9 2
7	Tu	Monten. decl. War on Aust. 1914		♋	4 58	7 13	9 22	5 2	7 9	9 25	5 17	6 53	9 39
8	W	Germans bombard Libau, 1914		♋	4 59	7 11	9 54	5 2	7 8	9 58	5 18	6 52	10 17
9	Th	☾ 9th. ☽ in ♊		♋	5 0	7 10	10 31	5 3	7 7	10 36	5 19	6 52	10 59
10	Fr	☾ gr. libration W.		♋	5 1	7 9	11 14	5 4	7 5	11 20	5 19	6 51	11 45
11	Sa	♋ 11		♋	5 2	7 7	morn	5 5	7 4	morn	5 20	6 50	morn
82. 10th Sunday after Trinity. Luke 19 Day's Length, 14h. 3m.—13h. 57m.—13h. 28m.													
12	S	Eng. decl. War on Aust. 1914		♋	5 3	7 6	0 4	5 6	7 3	0 10	5 21	6 49	0 37
13	M	♋♋♋: ♄ in ♊		♋	5 4	7 4	0 59	5 7	7 1	1 5	5 21	6 48	1 30
14	Tu	8♋♋. E. T. Seton born, 1860		♋	5 5	7 3	1 57	5 8	7 0	2 2	5 22	6 47	2 26
15	W	☾♋♋. N. Bonaparte b. 1769		♋	5 6	7 2	2 58	5 9	6 59	3 3	5 23	6 45	3 23
16	Th	♋♋♋. Storm in Texas, 1915		♋	5 7	7 0	4 0	5 10	6 57	4 4	5 24	6 44	4 20
17	Fr	17th. D. Crockett b., 1786		♋	5 8	6 59	sets	5 11	6 56	sets	5 24	6 43	sets
18	Sa	☾ in apogee		♋	5 10	6 57	7 3	5 12	6 54	7 2	5 25	6 42	7 0
83. 11th Sunday after Trinity. Luke 18 Day's Length, 13h. 45m.—13h. 40m.—13h. 15m.													
19	S	Steamer Arabic sunk, 1915		♋	5 11	6 56	7 25	5 13	6 53	7 25	5 26	6 41	7 27
20	M	♋ in aphelion: ☽♋: ☽♋♋		♋	5 12	6 54	7 46	5 14	6 51	7 47	5 26	6 40	7 53
21	Tu	Gen. Franz Sigel died, 1902		♋	5 13	6 53	8 9	5 15	6 50	8 11	5 27	6 39	8 22
22	W	☽ gr. elong. E., 27° 23'		♋	5 14	6 51	8 35	5 16	6 48	8 38	5 27	6 38	8 54
23	Th	Japan decl. War on Ger., 1914		♋	5 15	6 50	9 5	5 17	6 47	9 9	5 28	6 36	9 29
24	Fr	St. Bartholomew		♋	5 16	6 48	9 40	5 18	6 45	9 45	5 29	6 35	10 8
25	Sa	25th. Namur taken, 1914		♋	5 17	6 46	10 24	5 19	6 44	10 30	5 30	6 34	10 55
84. 12th Sunday after Trinity. Mark 7 Day's Length, 13h. 27m.—13h. 22m.—13h. 3m.													
26	S	☾ gr. libration E.		♋	5 18	6 45	11 18	5 20	6 42	11 24	5 30	6 33	11 51
27	M	Germans occupy Lille, 1914		♋	5 19	6 43	morn	5 21	6 41	morn	5 31	6 32	morn
28	Tu	☾ in ♋. Goethe born, 1749		♋	5 20	6 41	0 22	5 22	6 39	0 28	5 31	6 30	0 53
29	W	Japan annexed Korea, 1910		♋	5 21	6 40	1 34	5 23	6 38	1 39	5 32	6 29	2 1
30	Th	Germans capture Amiens, 1914		♋	5 22	6 38	2 51	5 24	6 36	2 55	5 33	6 28	3 12
31	Fr	♋♋♋. G. W. Curtis d., 1892		♋	5 23	6 37	4 11	5 25	6 35	4 13	5 33	6 27	4 26



September

MOON'S PHASES				MOON'S SIGNS	LATITUDE			LATITUDE			LATITUDE				
8 FRANCISCO		NEW YORK			CHICAGO		Of Boston; New England, N. York State, So. Mich., Wisconsin, Iowa, Wyo. and Oregon			Of New York City; Philadel'a, Conn. New Jersey, Pa., Ohio, Indiana, Illinoi, Neb. and Cal.			Of Charleston; N. and S. Car., Ga., Ala., Miss., Ark., N. La. and Texas, S. Ariz. and Cal.		
1	4	28	M.		1	7	28	M.	1	6	28	M.			
7	11	5	A.		8	2	5	M.	8	1	5	M.			
16	2	27	M.		16	5	27	M.	16	4	27	M.			
23	9	41	A.		24	0	41	M.	23	11	41	A.			
30	0	31	A.		30	3	31	A.	30	2	31	A.			
D. M.	D. W.	Historical Events.			Sun rises	Sun sets	Moon rises	Sun rises	Sun sets	Moon rises	Sun rises	Sun sets	Moon rises		
I	Sa	in perigee			H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.		
86. 18th Sunday after Trinity. Luke 10 Day's Length, 13h. 8m.—13h. 4m.—12h. 49m.															
2	S	1st. Sedan surrend., 1870			5	25	6 33	6 51	5 27	6 31	6 52	5 35	6 24	6 57	
3	M	□ ♄ ♀. Labor Day			5	26	6 31	7 21	5 28	6 30	7 23	5 35	6 23	7 34	
4	Tu	Steamer Hesperian sunk, 1915			5	27	6 30	7 53	5 29	6 28	7 57	5 36	6 21	8 13	
5	W	♄ stationary			5	29	6 28	8 29	5 30	6 26	8 34	5 37	6 20	8 55	
6	Th	Pres McKinley shot, 1901			5	30	6 26	9 11	5 31	6 25	9 16	5 37	6 19	9 41	
7	Fr	♄ ♄ ♄			5	31	6 24	9 59	5 32	6 23	10 5	5 38	6 17	10 31	
8	Sa	8th. Gen. Corbin d. 1909			5	32	6 23	10 53	5 33	6 22	10 59	5 38	6 16	11 25	
86. 14th Sunday after Trinity. Luke 17 Day's Length, 12h. 48m.—12h. 46m.—12h. 36m.															
9	S	♄ gr. hel lat. S.; ♄ in ♀			5	33	6 21	11 51	5 34	6 20	11 56	5 39	6 15	morn	
10	M	Empress Elizabeth assass. 1898			5	34	6 19	morn	5 35	6 18	morn	5 40	6 13	0 21	
11	Tu	♄ ♄ ♄			5	35	6 18	0 51	5 36	6 16	0 56	5 40	6 12	1 17	
12	W	♄ ♄ ♄: ♄ ♄ ♄			5	36	6 16	1 53	5 37	6 15	1 57	5 41	6 11	2 15	
13	Th	U. S. Constitution ratified, 1788			5	37	6 14	2 55	5 38	6 13	2 58	5 42	6 9	3 11	
14	Fr	♄ in apogee			5	38	6 12	3 55	5 39	6 12	3 57	5 43	6 8	4 5	
15	Sa	Germans take Pinsk, 1915			5	39	6 11	4 54	5 40	6 10	4 55	5 43	6 7	4 59	
87. 15th Sunday after Trinity. Matt. 6 Day's Length, 12h. 29m.—12h. 27m.—12h. 21m.															
16	S	16th. ♄ ♄ ♄			5	40	6 9	sets	5 41	6 8	sets	5 44	6 5	sets	
17	M	Dr. Jno. Hall died, 1898			5	41	6 7	6 16	5 42	6 7	6 18	5 44	6 4	6 27	
18	Tu	♄ ♄ inferior			5	42	6 5	6 40	5 43	6 5	6 43	5 45	6 3	6 57	
19	W	♄ ♄ ♄. Bulgaria mobilizes, 1915			5	43	6 3	7 8	5 44	6 3	7 12	5 46	6 2	7 30	
20	Th	Flood in India, 1915			5	44	6 2	7 42	5 45	6 1	7 47	5 46	6 0	8 9	
21	Fr	St. Matthew			5	46	6 0	8 23	5 46	6 0	8 29	5 47	5 59	8 53	
22	Sa	♄ ♄ ♄. Robt. Hoe died, 1909			5	47	5 58	9 12	5 47	5 58	9 18	5 48	5 58	9 44	
88. 16th Sunday after Trinity. Luke 7 Day's Length, 12h. 8m.—12h. 8m.—12h. 8m.															
23	S	23d. Autumn begins			5	48	5 56	10 10	5 48	5 56	10 16	5 48	5 56	10 41	
24	M	24th. ♄ in ♀			5	49	5 55	11 17	5 49	5 55	11 22	5 49	5 55	11 45	
25	Tu	French bombard Lissa, 1914			5	50	5 53	morn	5 50	5 53	morn	5 50	5 53	morn	
26	W	Russians occupy Przemyśl, 1914			5	51	5 51	0 29	5 51	5 51	0 33	5 50	5 52	0 53	
27	Th	♄ stationary: ♄ ♄ ♄			5	52	5 49	1 44	5 52	5 50	1 47	5 51	5 51	2 2	
28	Fr	♄ in ♀			5	53	5 48	3 2	5 53	5 48	3 4	5 52	5 49	3 12	
29	Sa	30th. Michaelmas Day			5	54	5 46	4 20	5 54	5 46	4 20	5 52	5 48	4 23	
89. 17th Sunday after Trinity. Luke 14 Day's Length, 11h. 49m.—11h. 50m.—11h. 54m.															
30	S	♄ stationary			5	55	5 44	5 38	5 55	5 45	5 37	5 53	5 47	5 34	



MOON'S PHASES

	S. FRANCISCO	NEW YORK	CHICAGO
D. H. M.	D. H. M.	D. H. M.	D. H. M.
7 2 14 A.	7 5 14 A.	7 4 14 A.	
15 6 41 A.	15 9 41 A.	15 8 41 A.	
23 6 38 M.	23 9 38 M.	23 8 38 M.	
29 10 19 A.	30 1 19 M.	30 0 19 M.	

MOON'S SIGNS

LATITUDE
Of Boston; New
England, N. York
State, So. Mich.,
Wisconsin, Iowa,
Wyo. and Oregon

LATITUDE
Of New York City;
Phila'del'a, Conn.,
New Jersey, Pa.,
Ohio, Indiana, Illi-
nois, Neb. and Cal.

LATITUDE
Of Charleston; N.
and S. Car., Ga.,
Ala., Miss., Ark.,
N. La. and Texas.
S. Ariz. and Cal.

D. M.	D. W.	Historical Events.	Sun rises	Sun sets	Moon rises	Sun rises	Sun sets	Moon rises	Sun rises	Sun sets	Moon rises
1	M.	♂♂. Annie Besant b., 1847	5 56	5 43	5 48	5 56	5 43	5 51	5 54	5 45	6 5
2	Tu	Railroad Disaster in Belg., 1915	5 58	5 41	6 23	5 57	5 41	6 27	5 54	5 44	6 46
3	W	♂ in perihelion	5 59	5 39	7 4	5 58	5 40	7 9	5 55	5 43	7 32
4	Th	♂ gr. elong. W., 17° 56'	6 0	5 37	7 51	5 59	5 38	7 57	5 56	5 42	8 22
5	Fr	♂ ♀	6 1	5 36	8 45	6 0	5 37	8 51	5 56	5 40	9 16
6	Sa	♂ in ♀. Jenny Lind b., 1820	6 2	5 34	9 43	6 1	5 35	9 49	5 57	5 39	10 13

40. 18th Sunday after Trinity. Matt. 22 Day's Length, 11h. 29m.—11h. 31m.—11h. 40m.

7	S	♂ 7th. O.W. Holmes d. 1894	6 3	5 32	10 44	6 2	5 33	10 49	5 58	5 38	11 11
8	M	Fire in Chicago, 1871	6 4	5 31	11 45	6 3	5 32	11 49	5 59	5 36	morn
9	Tu	♂♂. Antwerp capt., 1914	6 5	5 29	morn	6 4	5 30	morn	6 0	5 35	0 8
10	W	♂♂. ♂♂	6 7	5 27	0 46	6 5	5 28	0 49	6 0	5 34	1 4
11	Th	♂ in apogee	6 8	5 25	1 47	6 6	5 27	1 49	6 1	5 33	1 59
12	Fr	Germans occupy Ghent, 1914	6 9	5 24	2 47	6 7	5 25	2 48	6 2	5 31	2 53
13	Sa	♂ gr. hel. lat. N.	6 10	5 22	3 46	6 8	5 24	3 46	6 2	5 30	3 47

41. 19th Sunday after Trinity. Matt. 9 Day's Length, 11h. 10m.—11h. 13m.—11h. 26m.

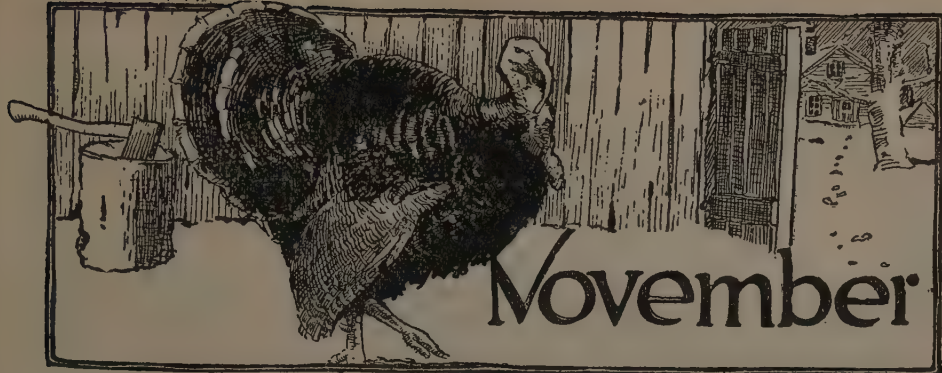
14	S	♀ in aphelion: ♂♂	6 11	5 21	4 46	6 9	5 22	4 45	6 3	5 29	4 41
15	M	15th. Sen. Dolliver d. 1910	6 13	5 19	5 47	6 11	5 21	5 45	6 4	5 28	5 37
16	Tu	Germans occupy Ostend, 1914	6 14	5 17	sets	6 12	5 19	sets	6 5	5 26	sets
17	W	Four Ger. Destroyers sunk, 1914	6 15	5 16	5 44	6 13	5 18	5 49	6 5	5 25	6 9
18	Th	St. Luke, Evangelist.	6 16	5 14	6 23	6 14	5 16	6 28	6 6	5 24	6 52
19	Fr	♂♂. Eug. Ely killed, 1912	6 17	5 13	7 10	6 15	5 15	7 16	6 7	5 23	7 41
20	Sa	♂ gr. libration E.	6 18	5 11	8 5	6 16	5 13	8 11	6 8	5 22	8 36

42. 20th Sunday after Trinity. Matt. 22 Day's Length, 10h. 51m.—10h. 55m.—11h. 18m.

21	S	♂ in ♀	6 19	5 10	9 8	6 17	5 12	9 13	6 8	5 21	9 37
22	M	John Sherman died, 1900	6 21	5 8	10 17	6 18	5 10	10 22	6 9	5 20	10 42
23	Tu	23d. Gen. Diaz capt. 1912	6 22	5 7	11 30	6 19	5 9	11 33	6 10	5 19	11 49
24	W	♂♂	6 23	5 5	morn	6 20	5 8	morn	6 11	5 18	morn
25	Th	Battle of Balacava, 1854	6 24	5 4	0 44	6 22	5 6	0 46	6 11	5 17	0 57
26	Fr	Typhoon in Philippines, 1915	6 25	5 2	1 59	6 23	5 5	2 0	6 12	5 15	2 5
27	Sa	♂ in perigee	6 26	5 1	3 14	6 24	5 3	3 14	6 13	5 14	3 13

43. 21st Sunday after Trinity. John 4 Day's Length, 10h. 32m.—10h. 37m.—10h. 59m.

28	S	St. Simon and St. Jude.	6 28	5 0	4 29	6 25	5 2	4 28	6 14	5 13	4 21
29	M	Henry George died, 1896	6 29	4 58	5 46	6 26	5 1	5 43	6 15	5 12	5 32
30	Tu	30th. ♂ stat.: □ ♀	6 30	4 57	rises	6 27	5 0	rises	6 16	5 12	rises
31	W	Hallowe'en	6 32	4 55	5 40	6 29	4 58	5 45	6 16	5 11	6 9



MOON'S PHASES

S. FRANCISCO	NEW YORK	CHICAGO
D. H. M.	D. H. M.	D. H. M.
6 9 3 M.	6 0 3 A.	6 12 3 M.
14 10 28 M.	14 1 28 A.	14 0 28 A.
21 2 29 A.	21 5 29 A.	21 4 29 A.
28 10 41 M.	28 1 41 A.	28 0 41 A.

MOON'S SIGNS

LATITUDE
Of Boston; New England, N. York State, So. Mich., Wisconsin, Iowa, Wyo. and Oregon

LATITUDE
Of New York City; Philadel'a, Conn., New Jersey, Pa., Ohio, Indiana, Illinois, Neb. and Cal.

LATITUDE
Of Charleston; N. and S. Car., Ga., Ala., Miss., Ark., N. La. and Texas, S. Ariz. and Cal.

D. M.	D. W.	Historical Events.
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1	Th	♂ ♀. All Saints' Day	6 33 4 54	6 31	6 30 4 57	6 37	6 17 5 10	7 2
2	Fr	♂ gr. libration W.	6 34 4 52	7 29	6 31 4 56	7 35	6 18 5 9	8 0
3	Sa	♂ ♀ superior: ♀ in ♀	6 35 4 52	8 31	6 32 4 55	8 36	6 19 5 8	8 59

44. 22d Sunday after Trinity. Matt. 18 Day's Length. 10h. 14m.—10h. 21m.—10h. 47m.

4	S	Cruiser Yorck sunk, 1914	6 36 4 50	9 33	6 33 4 54	9 37	6 20 5 7	9 57
5	M	♀ gr. hel. lat. S.: ♀ in ♀	6 38 4 49	10 35	6 35 4 52	10 39	6 21 5 6	10 55
6	Tu	♂ h. ♂ h. ♂	6 39 4 48	11 36	6 36 4 51	11 39	6 22 5 6	11 51
7	W	Earthquake in Peru, 1913	6 40 4 47	morn	6 37 4 50	morn	6 23 5 5	morn
8	Th	♂ ♂: ♀ in apogee	6 42 4 46	0 36	6 38 4 49	0 37	6 24 5 4	0 45
9	Fr	♂ stationary	6 43 4 45	1 36	6 39 4 48	1 36	6 25 5 3	1 39
10	Sa	Emp. Yoshihito crowned, 1915	6 44 4 44	2 35	6 41 4 47	2 34	6 26 5 2	2 32

45. 23d Sunday after Trinity. Matt. 22 Day's Length. 9h. 57m.—10h. 4m.—10h. 35m.

11	S	Germans capt. Dixmude, 1914	6 45 4 42	3 36	6 42 4 46	3 34	6 26 5 1	3 28
12	M	♂ ♂	6 47 4 41	4 38	6 43 4 45	4 35	6 27 5 1	4 24
13	Tu	Cherry Mine Disaster, 1909	6 48 4 40	5 41	6 44 4 44	5 37	6 28 5 0	5 21
14	W	14th. La Seine sank, 1909	6 49 4 40	sets	6 45 4 43	sets	6 29 5 0	sets
15	Th	♂ ♀: ♀ in aphelion	6 51 4 39	5 6	6 46 4 43	5 12	6 30 4 59	5 37
16	Fr	♂ gr. libration E.	6 52 4 38	5 59	6 48 4 42	6 5	6 31 4 58	6 30
17	Sa	♂ in ♀. Suez Canal op'd, 1869	6 53 4 37	7 1	6 49 4 41	7 6	6 32 4 57	7 31

46. 24th Sunday after Trinity. Matt. 9 Day's Length. 9h. 42m.—9h. 50m.—10h. 25m.

18	S	♂ ♀. Fall of Frilep, 1915	6 54 4 36	8 9	6 50 4 40	8 14	6 33 4 58	8 35
19	M	Robert J. Burdette died, 1914	6 55 4 35	9 21	6 51 4 40	9 25	6 34 4 57	9 42
20	Tu	Tidal Wave in Jamaica, 1913	6 57 4 35	10 34	6 53 4 39	10 36	6 35 4 57	10 49
21	W	1st. ♂ ♂	6 58 4 34	11 46	6 54 4 38	11 47	6 36 4 56	11 54
22	Th	Russ. capt. Gumbin., 1914	6 59 4 33	morn	6 55 4 38	morn	6 36 4 56	morn
23	Fr	Vera Cruz evacuated, 1914	7 0 4 33	0 58	6 56 4 37	0 58	6 37 4 56	0 59
24	Sa	♂ in perigee	7 2 4 32	2 11	6 57 4 37	2 10	6 38 4 55	2 6

47. 25th Sunday after Trinity. John 6 Day's Length. 9h. 29m.—9h. 38m.—10h. 16m.

25	S	George R. Davis died, 1899	7 3 4 32	3 26	6 58 4 36	3 23	6 39 4 55	3 14
26	M	♂ stationary	7 4 4 31	4 40	6 59 4 36	4 36	6 40 4 55	4 22
27	Tu	Hoosac Tunnel opened, 1873	7 5 4 31	5 52	7 0 4 35	5 47	6 41 4 54	5 28
28	W	28th. ♂ ♀: ♂ ♀	7 6 4 30	rises	7 1 4 35	rises	6 42 4 54	rises
29	Th	Thanksgiving Day	7 7 4 30	5 12	7 2 4 35	5 18	6 42 4 54	5 43
30	Fr	♂ in ♀. St. Andrew	7 8 4 29	6 14	7 3 4 34	6 19	6 43 4 54	6 44



December

MOON'S PHASES				MOON'S SIGNS	LATITUDE			LATITUDE			LATITUDE															
D. FRANCISCO		NEW YORK			D. H. M.		D. CHICAGO		D. H. M.		D. H. M.		D. H. M.													
D.	H. M.	D.	H. M.		D.	H. M.	D.	H. M.	D.	H. M.	D.	H. M.	D.	H. M.												
6	14 M.	6	9 14 M.	6	8 14 M.	21	0 7 M.	3 52 M.	Of Boston; New	England, N. York	State, So. Mich..	Wisconsin, Iowa,	Wyo. and Oregon	Of New York City;	Philadel'a, Conn.	New Jersey, Pa.,	Ohio, Indiana, Illi-	nois, Neb. and Cal.	Of Charleston; N.	and S. Car., Ga.,	Ala., Miss., Ark.,	N. La. and Texas,	S. Ariz. and Cal.			
14	1 17 M.	14	4 17 M.	14	3 17 M.	21	0 7 M.	3 52 M.	Sun rises	Sun sets	Moon rises	Sun rises	Sun sets	Moon rises	Sun rises	Sun sets	Moon rises	Sun rises	Sun sets	Moon rises	Sun rises	Sun sets	Moon rises	Sun rises	Sun sets	Moon rises
20	7 A.	21	1 7 M.	21	0 7 M.	3 52 M.	28	3 52 M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
28	1 52 M.	28	4 52 M.	28	3 52 M.	3 52 M.	28	3 52 M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
D.	D.	Historical Events.		LATITUDE			LATITUDE			LATITUDE																
M.	W.			Sun rises	Sun sets	Moon rises	Sun rises	Sun sets	Moon rises	Sun rises	Sun sets	Moon rises														
1	Sa	Rear Adm. A.T. Mahan d. 1914		7 9	4 29	7 17	7 4	4 34	7 22	6 44	4 54	7 43														
48. 1st Sunday in Advent.				Matt. 21			Day's Length, 9h. 18m.—9h. 29m.—10h. 9m.																			
2	S	Austrians take Belgrade, 1914		7 10	4 28	8 20	7 5	4 34	8 24	6 45	4 54	8 42														
3	M	♂ ♀: ♂ ♀		7 11	4 28	9 23	7 6	4 33	9 26	6 46	4 54	9 40														
4	Tu	Ford Peace Ship sailed, 1915		7 12	4 28	10 24	7 7	4 33	10 26	6 47	4 54	10 35														
5	W	M. L. Hayward died, 1899		7 13	4 28	11 24	7 8	4 33	11 25	6 47	4 54	11 29														
6	Th	♂ ♀: ♂ ♀		7 14	4 28	morn	7 9	4 33	morn	6 48	4 54	morn														
7	Fr	A. Montg. Ward d., 1913		7 15	4 28	0 23	7 10	4 33	0 23	6 49	4 54	0 22														
8	Sa	British Naval Victory, 1914		7 16	4 28	1 23	7 11	4 33	1 22	6 50	4 54	1 17														
49. 2d Sunday in Advent.				Luke 21			Day's Length, 9h. 11m.—9h. 21m.—10h. 8m.																			
9	S	William Deering died, 1913		7 17	4 28	2 24	7 12	4 33	2 22	6 51	4 54	2 13														
10	M	Serenio E. Payne died, 1914		7 18	4 28	3 27	7 13	4 33	3 24	6 52	4 54	3 10														
11	Tu	♂ ♀: ♂ ♀		7 19	4 28	4 31	7 14	4 33	4 27	6 52	4 55	4 9														
12	W	♂ gr. libration E.		7 20	4 28	5 35	7 15	4 33	5 30	6 53	4 55	5 9														
13	Th	Mrs. U. S. Grant died, 1902		7 21	4 28	6 39	7 16	4 33	6 33	6 54	4 55	6 10														
14	Fr	♂ ♀: ♂ ♀		7 21	4 28	sets	7 16	4 34	sets	6 54	4 55	sets														
15	Sa	♂ ♀: ♂ ♀		7 22	4 29	5 57	7 17	4 34	6 2	6 55	4 55	6 25														
50. 3d Sunday in Advent.				Matt. 11			Day's Length, 9h. 6m.—9h. 16m.—10h. 0m.																			
16	S	Card. Rampolla died, 1913		7 23	4 29	7 9	7 18	4 34	7 13	6 56	4 56	7 32														
17	M	♂ ♀: ♂ gr. elong. E., 20° 20'		7 23	4 29	8 23	7 18	4 34	8 26	6 56	4 56	8 40														
18	Tu	♂ ♀: ♂ in perigee		7 24	4 29	9 37	7 19	4 35	9 39	6 57	4 57	9 47														
19	W	Gen. H.W. Lawton killed, 1899		7 25	4 30	10 50	7 20	4 35	10 51	6 57	4 57	10 53														
20	Th	U. S. Bank closed, 1791		7 26	4 30	morn	7 20	4 36	morn	6 58	4 58	11 59														
21	Fr	♂ ♀: ♂ in ♀		7 26	4 31	0 3	7 21	4 36	0 2	6 58	4 58	morn														
22	Sa	♂ ♀: ♂ in ♀		7 26	4 31	1 15	7 21	4 37	1 13	6 59	4 59	1 5														
51. 4th Sunday in Advent.				John 1			Day's Length, 9h. 5m.—9h. 15m.—10h. 0m.																			
23	S	Currency Bill signed, 1913		7 27	4 32	2 27	7 22	4 37	2 24	6 59	4 59	2 11														
24	M	♂ stationary		7 27	4 32	3 38	7 22	4 38	3 34	7 0	5 0	3 16														
25	Tu	♂ in ♀. Christmas Day		7 28	4 33	4 47	7 22	4 38	4 42	7 0	5 0	4 20														
26	W	St Stephen. ♂ gr. libr. W.		7 28	4 34	5 52	7 23	4 39	5 46	7 1	5 1	5 23														
27	Th	♂ in ♀. St. John, Evangelist		7 29	4 34	6 49	7 23	4 40	6 43	7 1	5 1	6 20														
28	Fr	♂ 28th. Innocents		7 29	4 35	rises	7 23	4 40	rises	7 2	5 2	rises														
29	Sa	♂ in perihelion		7 29	4 36	6 4	7 24	4 41	6 8	7 2	5 3	6 28														
52. Sunday after Christmas.				Matt. 1			Day's Length, 9h. 7m.—9h. 18m.—10h. 2m.																			
30	S	♂ ♀: ♂ Str. Persia sunk, 1915		7 29	4 36	7 8	7 24	4 42	7 11	7 2	5 4	7 27														
31	M	♂ ♀: ♂ ♀: ♂ in ♀		7 30	4 37	8 10	7 24	4 42	8 12	7 3	5 4	8 24														

ASTRONOMICAL CALCULATIONS FOR THE YEAR 1917

Eras of Time

The year 1917 comprises the latter part of the 141st and the beginning of the 142d year of the Independence of the United States, since Aug. 1 the 3d year of the Great War, and corresponds to the following eras:

- Year 7425-7426 of the Byzantine Era, beginning Sept. 1.
- " 5677-78 of the Jewish Era; the year 5678 begins at sunset Sept. 16.
- Year 2670, since the foundation of Rome.
- " 2229 of the Grecian Era.
- " 2577 of the Japanese Era.
- " 1335-36 of the Mohammedan Era; year 1336 begins Oct. 17.

Cycles of Time

- Dominical or Sunday Letter..... G.
- Epoch of Moon's age Jan. 1..... 6
- Lunar Cycle or Golden Number..... 18
- Dionysian Period..... 246
- Solar Cycle..... 22
- Roman Indiction..... 15
- Julian Period..... 6630
- Jewish Lunar Cycle..... 15
- Jan. 1 is the 2,421,230th day since the beginning of the Julian Period.

HEBREW CALENDAR, A. D. 1917, A. M. 5677-78

The year 5677 is the 15th of the 29th cycle of 19 years

Year	No.	Name	Day	Fast or Festival	Gregorian date
5677	4	Tebet	10	Fast of Tebet	Thur. Jan. 4
"	5	Sh'vat	1	Rosh-Chodesh	Wed. Jan. 24
"	6	Adar	1	"	Thur. Fri. Feb. 22-23
"	"	"	13	Fast of Esther	Wed. Mch. 7
"	"	"	14-15	Purim	Thur. Fri. Mch. 8-9
"	7	Nissan	1	Rosh-Chodesh	Sat. Mch. 24
"	"	"	15	1st day of Passover	Sat. Apr. 7
"	8	Iyar	1	Rosh-Chodesh	Sun. Mon. Apr. 22-23
"	"	"	18	Lag-B'-Omer	Thur. May 10
"	"	"	18	33d day of Omer	Thur. May 10
"	9	Sivan	1	Rosh-Chodesh	Tue. May 22
"	"	"	6	1st day of Pentecost	Sun. May 27
"	10	Tammuz	1	Rosh-Chodesh	Wed. Thur. June 20-21
"	"	"	17	Fast of Tammuz	Sat. * July 7
"	11	Av	1	Rosh-Chodesh	Fri. July 20
"	"	"	9	Fast of Av	Sat. * July 28
"	12	Ellul	1	Rosh-Chodesh	Sat. Sun. Aug. 18-19
5678	1	Tishri	1	1st day of New Year	Mon. Sept. 17 or beginning sunset Sept. 16
"	"	"	3	Fast of Gedaliah	Wed. Sept. 19
"	"	"	10	Yom-Kippur	Wed. Sept. 26
"	"	"	15	1st day of Tabernacles	Sun. Oct. 1
"	"	"	21	Hoshannah-Rabbah	Mon. Oct. 7
"	"	"	22	Sh'mini Atseres	Mon. Oct. 8
"	"	"	23	Simchas-Torah	Tue. Oct. 9
"	2	Chesvan	1	Rosh-Chodesh	Tue. Wed. Oct. 16-17
"	3	Kislev	1	"	Thur. Fri. Nov. 15-16
"	"	"	25	1st day of Chanukah	Mon. Dec. 10
"	4	Tebet	1	Rosh-Chodesh	Sat. Sun. Dec. 15-16
"	"	"	10	Fast of Tebet	Tue. Dec. 23
"	5	Sh'vat	1	Rosh-Chodesh	Mon. Jan. 14, 1918

* Observed the following day.

GREEK CHURCH AND RUSSIAN CALENDAR, A. D. 1917, A. M. 8026

New Style	Holy Days	Old Style	New Style	Holy Days	Old Style
Jan. 14	Circumcision	Jan. 1	July 12	Peter & Paul—Chief Apostles	June 29
" 19	Epiphany (Theophany)	" 6	Aug. 19	Transfiguration	Aug. 6
Feb. 11	Carnival Sunday	" 29	" 28	Repose of Theotokos	" 15
" 15	Hypopante (Purification)	Feb. 2	Sept. 12	St. Alexander Nevsky*	" 30
" 21	Ash Wednesday	" 8	" 21	Nativity of Theotokos	Sept. 8
" 25	First Sunday in Lent	" 12	" 27	Exaltation of "	" 14
Apr. 1	Palm Sunday	Mch. 19	Oct. 14	Patronage of "	Oct. 1
" 6	Great (Good) Friday	" 24	Nov. 28	1st day of Nativity	Nov. 15
" 8	Holy Pasche (Easter)	" 26	Dec. 4	Entrance of Theotokos	" 21
May 6	St. George	Apr. 25	" 22	Conception of "	Dec. 19
" 17	Ascension (Holy) Thur.	May 4	1918		
" 27	Coronation of Emperor*	" 14	Jan. 7	Christmas	Dec. 25
" 27	Pentecost	" 14	" 14	Circumcision	Jan. 1
June 12	Holy Ghost	" 30			

* Observed only in Russia.

MOHAMMEDAN CALENDAR, Year 1335-36

The year 1335 is the 15th year of the 45th cycle of 30 years

Month	Name	Begin	Month	Name	Begin
Year No.		days	Year No.		days
1335	4 Rabia II	Jan. 25	1335	11 Dulkaeda	Aug. 19
" 5	Jomhadi I	Feb. 23	" 12	Dulheggia	Sept. 18
" 6	" II	Mch. 25	1336	1 Muhareem	Oct. 17
" 7	Rajeb	Apr. 23	" 2	Saphar	Nov. 16
" 8	Sheban	May 23	" 3	Rabia I	Dec. 15
" 9	Ramadan (Fasting)	June 21	" 4	" II	Jan. 14, 1918
" 10	Schawall	July 21			

THE TWELVE SIGNS OF THE ZODIAC.

THE RAM. Aries, ♈ HEAD & FACE.

TWINs.
Gemini.
The Arms.

♊

LION.
Leo.
The Heart.

♌

BALANCE.
Libra.
The Reins.

♎

ARCHER.
Sagittarius.
The Thighs.

♐

WATERMAN.
Aquarius.
The Legs.

♒

BULL.
Taurus.
The Neck.

♉

CRAB.
Cancer.
The Breast.

♋

VIRGIN.
Virgo.
The Bowels.

♍

SCORPION.
Scorpio.
The Loins.

♏

GOAT.
Capricornus
The Knees.

♑

FISHES. Pisces: ♓ THE FEET.

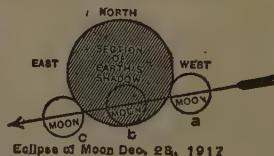
ECLIPSES, 1917

There will be seven eclipses this year—the greatest number possible in any one year, four of the Sun and three of the Moon as follows:

I. Total of the Moon Jan. 8, wholly visible throughout North America and partially in South America; the beginning will be visible in central and western Europe, N. W. Africa and the central and eastern Pacific regions; the ending in N. E. Asia and E. Australia.

As shown in the annexed cut the Moon will pass from W. to E. through the shadow of the earth while at her descending node so that she will make her exit from the shadow nearly her entire diameter further south than when she entered it, causing her to be more than totally eclipsed, or 16.4 digits; 12 digits

being taken as the Moon's apparent diameter. The different phases of the eclipse will be visible as follows:



Eclipse of Moon Dec. 29, 1917

Partial begins at a	Total begins H. M.	Middle or Greatest eclipse at b	Total ends H. M.	Partial ends at c
H. M.	H. M.	H. M.	H. M.	H. M.
0 42 morn.	1 52 morn.	2 37 morn.	3 21 morn.	4 31 morn. in Washington Mean Time
0 50 morn.	2 00 morn.	2 45 morn.	3 29 morn.	4 39 morn. in Eastern Standard Time

II. Partial of the Sun Jan. 23, visible more or less in E. Europe, western Asia and northern Africa.

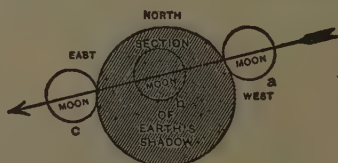
III. Partial of the Sun June 18-19, more or less visible in northern and central Asia and British America. In the United States on the Pacific coast, the Sun will rise more or less eclipsed on its northern limb, on the morning of the 19th, and a very small eclipse will be visible in N. Idaho, N. Oregon, Wash. and N. W. Montana. No part of the eclipse will be visible south of a line from Boise, Idaho to Helena, Montana.

IV. Total of the Moon July 4, invisible in United States. The beginning visible in Africa and partially so in Asia and Europe; the ending in Europe, Africa and South America.

V. Partial of the Sun July 16, very small and around the south-polar regions.

VI. Annular of the Sun Dec. 14, visible as a partial eclipse at sunrise on the coast of Argentina and southern Brazil and at sunset in southern Australia. The path of the annular phase cuts the South pole.

VII. Total of the Moon Dec. 28, wholly visible throughout North America and the beginning in South America. Size 12.1 digits or a trifle more than total, as shown in the annexed cut. The moon will be at her descending node at the time of this eclipse and hence will be further south at the end than she was at the beginning of the eclipse, as shown.



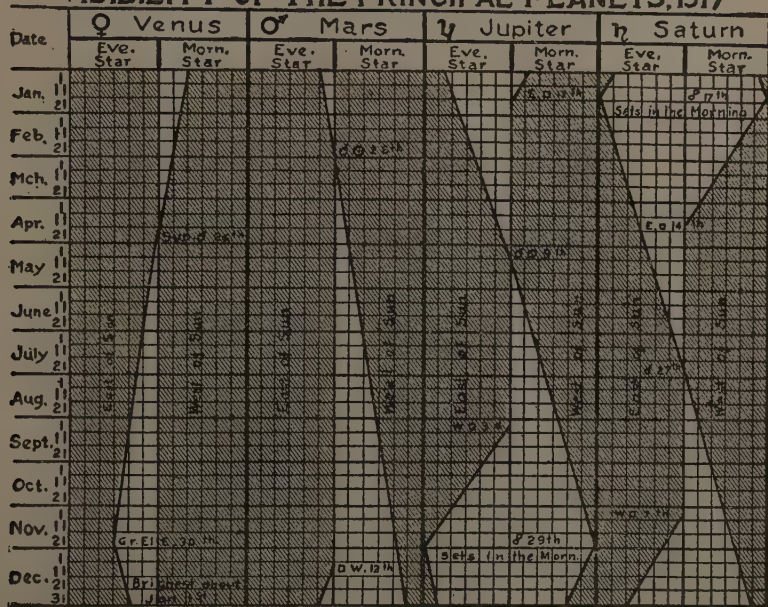
Eclipse of Moon Jan. 8, 1917

The time of the various phases will be as follows:

	Wash. Mean Time	Eastern Standard Time*
H. M.	H. M.	H. M.
Beginning of Partial Phase.....	2 57 morn.	3 5 morn.
" " Total	4 30 "	4 8 "
Middle or Greatest Eclipse.....	4 38 "	4 46 "
End of Total Phase.....	4 47 "	4 55 "
" " Partial	6 19 "	6 27 "

* Add 1h. for Atlantic time and subtract 1h. each for Central, Mountain, Pacific Alaskan and Hawaiian Time.

VISIBILITY OF THE PRINCIPAL PLANETS, 1917



Explanation: The light spaces show the approximate time and extent of visibility and, with the superior planets, the degree of brilliancy also. Thus Venus will be 2 h. or 30° W. of the sun Jan. 1; invisible the latter part of Apr. and first part of May

and 3 h. or 45° E. of sun last of November; Jupiter invisible in May, rising with the sun and brightest (180° from the sun) in November and December, setting at sunrise—an All Night Star.

PLANETS, BRIGHTEST OR BEST SEEN, INVISIBLE OR DIM

EVENING, MORNING OR ALL NIGHT STARS

Venus, best seen in Nov.-Dec. and Jan. 1918.
Mars, at the close of the year.
Jupiter, in Nov. and Dec.
Saturn, in Jan.
Uranus, in August.
Neptune, in January.

Invisible or Very Dim

Mercury, at all other times not included within the dates given above when an Evening or Morning Star.
Venus, in April and May.
Mars, in February and March.
Jupiter, from Apr. 25 to May 20.
Saturn, in July and August.
Uranus, and *Neptune*, always.

Brightest or Best Seen

Mercury, within the time limits given above when an Evening or Morning Star.

All Night Stars or Planets

Jupiter, in November and December.
Saturn, in January.

THE SEASONS (EASTERN STANDARD TIME)

	☉ enters sign	☉ Long.			D.	H.	M.
	♈	0°	Winter begins	1916, Dec. 21, 10:59 eve.	and lasts	89	0 39
	♈	0°	Spring	1917, Mch. 20, 11:38 eve.	" "	92	19 36
	♊	90°	Summer	1917, June 21, 7:14 eve.	" "	93	14 47
	♏	180°	Autumn	1917, Sept. 23, 10:01 morn.	" "	89	18 45
	♏	270°	Winter	1917, Dec. 22, 4:46 morn.	Trop. yr.	365	5 47

CHART OF THE HEAVENS



EXPLANATION

The Chart of the Heavens shows all the bright stars and groups visible in the U. S., Canada, Cuba and Hawaii. Stars of the 3d Magnitude are sometimes shown in order to complete a figure.

If a bright, uncharted body be seen near the "Ecliptic Circle" it must be a planet. To locate the planets or Moon, refer to the monthly calendar pages in this Almanac, find the proper signs on the chart in the "Ecliptic Circle" and an inspection of that part of the Heavens, comparing with the Chart, will serve to identify the planet and all surrounding objects.

Because of the Earth's motion from W. to E. (opposite to the direction of the arrow in the chart), the stars rise 4 m. earlier each day or 30 m. per week, or 2 hrs. a month. The chart shows the position at 9 p. m. Then if the position for any other hour

be desired, as for 7 p. m., count ahead one month, or back one month for 11 p. m., and so on for any hour of the night, holding the month desired in front as the face looks either to the North or South with name down.

A circle described from the zenith on the "Zenith Circle" for the desired Lat., with a radius of 90 degrees (see graduated meridian) will show what stars are above the horizon. Thus Capella is near the overhead (zenith) point on Lat. 40 degrees N. Jan. 15th, 9 p. m., as will be "Big Dipper" at 3 a. m. Then from these stars all the surrounding visible groups can be identified. The "Pointers" being 5 degrees apart and always in sight may be used as a convenient unit of measure; also when visible, the "Belt of Orion" 3 degrees, or the sides of the "Square of Pegasus."

ASTRONOMICAL CHARACTERS

☉ Sun.	♃ Jupiter.	♄ Runs high.	♁ Ascending	♊ Apog., far from ☉
♁ Earth	♄ Saturn.	♄ Runs low.	♊ Node.	♈ First Quarter.
☿ Mercury.	♅ Uranus.	♄ Opposition.	♊ Descending	♐ Full Moon.
♀ Venus.	♆ Neptune.	♄ Conjunction.	♊ Node.	♌ Last Quarter.
♂ Mars.	♁ Moon.	♄ Quadrature.	♊ Perigee, near ☉	♋ New Moon.

STORY OF OUR WORLD FAMILY FOR A. D. 1917—A. M. 2,000,000

The Sun

In tracing the relationship, origin and age of living and fossil forms, present conditions form the basis of all work, so likewise, in world-study or Astronomy. We know that the sun is a dark body surrounded by an envelope of burning gases, in which are all the elements that enter into the earth's structure. Therefore in the "beginning" of Genesis the earth and sun were one and likewise all the other members of this world family, and a knowledge of our natural laws is the key that opens the door and reveals to us conditions that obtain in other worlds, their weight, size, distance, etc. The bright solar envelope is torn asunder with convulsions, revealing the dark interior (Sun Spots), large enough to roll a dozen earths into and when these are largest and most numerous, about every 11 years, the earth trembles in sympathy—evident in earthquakes, volcanic activity and unusual meteorological conditions—such was the year 1915. Possibly the incessant bombardments of the European war may have added to the general disturbance.

During the total eclipses of the sun opportunity is afforded to steal many of his secrets, especially in such eclipses as are of longest totality, as in 1933, 1980, 2009 and 2038, which leaves much time for gain in knowledge and improvement in apparatus.

Mercury, because of his nearness to the sun, is invisible most of the time, and is therefore the least known of our family of naked-eye worlds. Special endeavor must always be made to see him, by knowing the time and place to look and then he shows up gloriously. This year the conditions will be most favorable near the "break o' day" Feb. 1-10 and Oct. 1-10 and near the close of twilight Jan. 1-10, Apr. 5-15 and Dec. 15-20; always seek him near the sunrise point of the horizon in the morning and the sunset point in the evening. When an unusually bright "star" is seen at these times and places the observer may be certain of having seen the youngest of our world family to whom no descendants of moons have been vouchsafed, so far as we know.

Venus, the goddess of beauty, will not, however, attract much attention until the evenings of fall and winter, being invisible the latter part of April when hidden from us by the sun and only dimly visible for weeks before and after that owing to her great distance from us and proximity to the sun. Indeed she will appear 17 times larger in December than in May, even though at the first date she will present quite her full phase while at the last date she will only show a thin crescent or New Moon phase.—see the annexed cut and explanation:



- A.—April 11, 1917.
- B.—Not in 1917 but in April, 1918.
- C.—Not in 1917 but in March, 1918.
- D.—Not in 1917 but in February, 1918.
- E.—About May 11, 1917.
- F.—About November 30, 1917.
- G.—Not in 1917 but about January 1, 1918.
- H.—Not in 1917 but early in February, 1918.

By comparing her itinerary, herewith given, with the Chart of the Heavens, which can be obtained in large size of Berlin H. Wright, Deland, Fla., for 50 cents, much satisfaction will result, as the relative positions and names of the constellational groups and stars will soon be acquired—for who can fail to reap happiness from such knowledge?

At the beginning of the year Venus will be in Scorpio and about 10° N. E. of the red star Antares; enters the western boundary of the Milky Way about Jan. 8, emerging on its eastern side on the 20th and at the end of the handle of the Milkmaid's Dipper; 1° N. of Moon Jan. 21 and less than 3° S. of Mercury

Jan. 30. On Feb. 20 the moon will overtake her while in Capricornus just south of the two bright stars in the horns of the Goat, and pass 3° to the south of her, her phase being nearly like A or E in above cut. We will pass on over the period when she is unfavorably situated and pick up her course from July 1, when she will be found midway between Praesepe—the Bee Hive—and Pollux in Gemini, close to Saturn (1° N.) July 4 and in line with Castor and Pollux 5° N. W. of her, setting at 9 p. m. with Procyon 15° S. W. and Sirius 15° still further S. W., July 26 a little N. of Regulus, in the end of the handle of the Sickle in Leo, making an attractive grouping of interesting objects. Praesepe or the Bee Hive which is easily visible to the naked eye on a line joining Venus and Regulus, becomes beautiful under the slightest optical aid, bringing out a wealth of glittering stars. This is only one of the numerous "Island Universes" of the heavens, similar to the Galaxy or Milky Way. Imagine our own sun and family in the midst of such a group of suns, each far brighter than our brightest stars or planets, satellites, comets, etc., with their ever recurring phenomena! This group has been repeatedly mistaken for a comet and early observers called it the "Nebula of Cancer" but even a good night glass causes its filmy appearance to disappear and brings out the swarms of twinkling suns.

The latter part of August she will be 10° S. from Denebola in Leo and 6° N. of the moon Aug. 20; by the 10th of September she will be less than 2° N. of Spica Virginis and 4° N. of the moon Sept. 19 and 30° S. of Arcturus on the 20th, entering the Square of Libra Oct. 1. In this vicinity will be found the Northern Crown and 15° to the left of it and on a line connecting it with Vega Lyra, is to be seen, as a dim patch of light, another vast "Island Universe" in the constellation Hercules. This is the largest and richest of the naked-eye star groups and which, before the time of telescopes, was supposed to be a great nebula, even a small instrument will so bring out its glories as to compel exclamations of wonder.

By Oct. 15-20 Venus will have passed into Scorpio; close to and N. of Antares and complete her circuit of the heavens, being close to the moon Oct. 19 (an occultation in southern latitudes). During November she passes through the constellation Sagittarius just above or N. of the Milkmaid's Dipper and will be 4° S. of the moon Nov. 18; will reach her greatest angular distance from the Sun (47° 18') Nov. 30, when a line from the N. Star through the Great Cross to Aquila, and extended 30° will reach her. Note that the "Apex of the Heavens" is shown on the chart between Lyra and the Great Cross. It is about this point that our family is revolving. She will be in line with Polaris, Deneb and Job's Coffin Dec. 10 and 30° S. of the last and finally attaining her greatest brilliancy and passing 5° S. of the Moon Dec. 31.

Mars will not be a conspicuous object at any time during the year, because of his nearness to the Sun—not in real, but angular distance (see chart). Being in conjunction with the Sun Feb. 28 he will be quite invisible in February and March. When first easily seen, in June, he will be in close company with Jupiter, being nearest him June 8 when only 34" north of him, rising about 3 a. m. with the Pleiades just north of them; 10° N. of the Moon July 16 and passing just N. of Aldebaran in the Hyades near the end of July; Aug. 1 midway between Betelgeuse and Capella and Aug. 14th 34" N. of the Moon; Aug. 20 in line with Sirius and Castor, forming a neat triangle with Castor and Pollux; 3° N. of the Moon Sept. 11 and Sept. 20 in the Bee Hive; 4° N. of Saturn Oct. 1—a beautiful sight just E. of the Bee Hive; last of October just N. of Regulus; 5° N. of Moon Oct. 10; 6° N. Nov. 8 and 8° N. Dec. 7. He begins to rise before midnight about Dec. 1 and hence then becomes an Evening Star, but will not be at his usual brightest until in April, 1918.

Jupiter will be on the meridian about 7 p. m. Jan. 1 and may be found about 10° S. E. of Algenib at the S. E. corner of the Great Square of Pegasus 30° directly S. of the only naked-eye nebula—the "Great Nebula of Andromeda," easily to be seen, when well above the horizon in the absence of the moon, on a line connecting Jupiter with the base of Cassiopeia's Chair. Many letters we receive from people who mistake this for a comet as its form is much elongated—or spindle shaped. With a moderate glass stars may be seen shining through its filmy mass. Such was the mass of all the matter now embodied in our world family many millions of years ago, or in the "beginning" of the Mosaic account of creation. Along from the middle to the last of June after Jupiter has

passed the Sun and is to be seen on the other, west side of him as a Morning Star, he will be about midway between the Pleiades and Hyades and the latter part of August 5° N. of Aldebaran. He will go a little further E. until midway between Aldebaran and El Nath and then retrograde or go back westward until the end of the year. His visible near approaches to the Moon will be as follows: Jan. 1, 29, Feb. 25, Mch. 25, Apr. 22, July 14, Aug. 11, Sept. 7, Oct. 5, Nov. 1, 28, Dec. 25 in all of which he will be from 3° to 6° south; at E. quadrature Sept. 3 and at opposition or 180° from the Sun Nov. 29.

Saturn will appear to the best advantage at or near the beginning of the year and at its close, being in both instances an All Night Star and rising near sunset (see chart). No use to seek him in July or August. January 1 he will be in Gemini

and about 5° S. of Pollux and in line with that star and Castor, with the Bee Hive a few degrees east, and he will be retrograding or going W. past the stars until April when he will be between Procyon and Pollux and he will advance the remainder of the year. His close approach to Mars was mentioned under that head. Castor is the finest double star in the heavens. Extra good eyesight unaided, shows the companion star and the slightest optical aid brings them out plainly. His near approaches to the Moon will be as follows: Jan. 9, 1° N., Feb. 5, Mch. 4, 31, 34° N., April 28, 1° N., May 25, 134° N., Oct. 10, 33° N., Nov. 6 and Dec. 4, 4° N.

No attention is given to Uranus or Neptune as the latter is never to be seen except with good telescope and knowledge of place and the former is only just discernible to the normal eye when at his very brightest and no moonlight.

LONGITUDINAL TIME IN LARGEST CITIES

(When noon at Washington)

Buffalo.....	11.52 A. M.	Detroit.....	11.36 A. M.	New York.....	12.12 P. M.
Boston.....	12.24 P. M.	Galveston.....	10.49 A. M.	Omaha.....	10.44 A. M.
Berlin.....	6.02 P. M.	Havana.....	11.38 A. M.	Portland, Ore.....	8.56 A. M.
Bombay.....	10.00 P. M.	Hongkong.....	11.44 P. M.	Paris.....	5.17 P. M.
Cincinnati.....	11.30 A. M.	Halifax.....	12.54 P. M.	Rome.....	5.58 P. M.
Canton, China.....	12.41 A. M.	Honolulu.....	6.45 A. M.	St. Louis.....	11.07 A. M.
Cleveland.....	11.41 A. M.	London.....	5.08 P. M.	Salt Lake City.....	9.40 A. M.
Chicago.....	11.17 A. M.	Lisbon.....	4.31 P. M.	San Francisco.....	8.58 A. M.
Cairo, Egypt.....	7.13 P. M.	Melbourne.....	2.48 P. M.	Vienna.....	6.11 P. M.
Denver.....	10.08 A. M.	Manila.....	1.20 A. M.	Yokohama.....	2.16 A. M.

STANDARD TIME BELTS

Name of Time Belt	Degrees	Central Meridian from Greenwich
Intercolonial or Atlantic.....	60	4 hours west.
Eastern.....	75	5 hours west.
Central.....	90	6 hours west.
Mountain.....	105	7 hours west.
Pacific.....	120	8 hours west.
Sitka.....	135	9 hours west.
Tahiti.....	150	10 hours west.
Hawaiian.....	157½	10 hrs. 31 min. west.

LATITUDE AND LONGITUDE

Definitions.—Meridian: A plane passing through the vertical and parallel to the earth's axis of rotation.

Latitude: The angle between the horizontal plane and the earth's axis of rotation.

Longitude: The angle (in degrees or hours) between the meridian and the prime meridian, usually the meridian of Greenwich.

Longitude is reckoned east or west from any given meridian called the Prime Meridian. Latitude is reckoned north or south from the equator. Latitude and longitude are coordinates that fix the position of points on the earth's surface.

CHURCH CALENDAR, ANNIVERSARIES, ETC.

New Year's Day (Circumcision).....	Jan.	1	St. Barnabas.....	June	11
Epiphany (12th Day).....	Jan.	6	Nativity of John the Baptist.....	June	24
Greek Church New Year's Day.....	Jan.	14	Peter and Paul.....	June	29
Lee's Birthday.....	Jan.	19	Independence Day.....	July	4
Conversion of St. Paul.....	Jan.	25	Orangeman's Day.....	July	12
Purification B. V. M.....	Feb.	2	St. Swithen's Day.....	July	15
Septuagesima Sunday.....	Feb.	4	Mary Magdalen.....	July	22
Sexagesima.....	Feb.	11	St. James.....	July	25
Lincoln's Birthday.....	Feb.	12	Transfiguration.....	Aug.	6
St. Valentine's Day.....	Feb.	14	Name of Jesus.....	Aug.	7
Quinquagesima Sunday.....	Feb.	18	Feast of Assumption B. V. M.....	Aug.	15
Ash Wednesday (Lent begins).....	Feb.	21	St. Bartholomew.....	Aug.	24
Washington's Birthday.....	Feb.	22	St. John the Baptist beheaded.....	Aug.	29
Quadragesima Sunday.....	Feb.	25	Labor Day except in certain States.....	Sept.	4
Ember Days.....	Feb.	28	Nativity of Mary.....	Sept.	8
Ember Days.....	Mch.	2, 3	Exaltation of Holy Cross.....	Sept.	14
St. Patrick's Day.....	Mch.	17	Jewish New Year's Day.....	Sept.	17
Mid Lent Sunday.....	Mch.	18	Ember Days.....	Sept. 19, 21, 22	
Passion Sunday.....	Mch.	25	St. Matthew.....	Sept.	21
Annunciation (Lady Day).....	Mch.	25	Michaelmas.....	Sept.	29
Palm Sunday.....	April	1	Mohammedan New Year's Day.....	Oct.	17
Good Friday.....	April	6	St. Luke.....	Oct.	18
Easter Sunday.....	April	8	Simon and Jude.....	Oct.	28
Low Sunday.....	April	15	Halloween.....	Oct.	31
St. George.....	April	23	All Saints' Day.....	Nov.	1
St. Mark.....	April	25	All Souls' Day.....	Nov.	2
Memorial Day (Southern).....	April	28	St. Catherine.....	Nov.	25
Philp and James.....	May	1	Thanksgiving Day.....	Nov.	29
Rogation Sunday.....	May	13	St. Andrew.....	Nov.	30
Mothers' Day.....	May	15	1st Sunday in Advent.....	Dec.	2
Ascension (Holy) Thr.....	May	17	Conception B. V. M.....	Dec.	8
Pentecost (Whitsunday).....	May	27	Ember Days.....	Dec. 19, 21, 22	
Memorial Day (Northern).....	May	30	Christmas.....	Dec.	25
Ember Days.....	May	30	St. Stephen.....	Dec.	26
Ember Days.....	June	1, 2	St. John the Evangelist.....	Dec.	27
Trinity Sunday.....	June	3	Holy Innocents.....	Dec.	28
Corpus Christi.....	June	7			

DAY CALCULATING TABLE
FOR ASCERTAINING NUMBER OF DAYS BETWEEN ANY TWO DAYS WITHIN TWO YEARS.

TABLE I												TABLE II													
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	1	32	60	91	121	152	182	213	244	274	305	335	1	366	397	425	456	486	517	547	578	609	639	670	700
2	2	33	61	92	122	153	183	214	245	275	306	336	2	367	398	426	457	487	518	548	579	610	640	671	701
3	3	34	62	93	123	154	184	215	246	276	307	337	3	368	399	427	458	488	519	549	580	611	641	672	702
4	4	35	63	94	124	155	185	216	247	277	308	338	4	369	400	428	459	489	520	550	581	612	642	673	703
5	5	36	64	95	125	156	186	217	248	278	309	339	5	370	401	429	460	490	521	551	582	613	643	674	704
6	6	37	65	96	126	157	187	218	249	279	310	340	6	371	402	430	461	491	522	552	583	614	644	675	705
7	7	38	66	97	127	158	188	219	250	280	311	341	7	372	403	431	462	492	523	553	584	615	645	676	706
8	8	39	67	98	128	159	189	220	251	281	312	342	8	373	404	432	463	493	524	554	585	616	646	677	707
9	9	40	68	99	129	160	190	221	252	282	313	343	9	374	405	433	464	494	525	555	586	617	647	678	708
10	10	41	69	100	130	161	191	222	253	283	314	344	10	375	406	434	465	495	526	556	587	618	648	679	709
11	11	42	70	101	131	162	192	223	254	284	315	345	11	376	407	435	466	496	527	557	588	619	649	680	710
12	12	43	71	102	132	163	193	224	255	285	316	346	12	377	408	436	467	497	528	558	589	620	650	681	711
13	13	44	72	103	133	164	194	225	256	286	317	347	13	378	409	437	468	498	529	559	590	621	651	682	712
14	14	45	73	104	134	165	195	226	257	287	318	348	14	379	410	438	469	499	530	560	591	622	652	683	713
15	15	46	74	105	135	166	196	227	258	288	319	349	15	380	411	439	470	500	531	561	592	623	653	684	714
16	16	47	75	106	136	167	197	228	259	289	320	350	16	381	412	440	471	501	532	562	593	624	654	685	715
17	17	48	76	107	137	168	198	229	260	290	321	351	17	382	413	441	472	502	533	563	594	625	655	686	716
18	18	49	77	108	138	169	199	230	261	291	322	352	18	383	414	442	473	503	534	564	595	626	656	687	717
19	19	50	78	109	139	170	200	231	262	292	323	353	19	384	415	443	474	504	535	565	596	627	657	688	718
20	20	51	79	110	140	171	201	232	263	293	324	354	20	385	416	444	475	505	536	566	597	628	658	689	719
21	21	52	80	111	141	172	202	233	264	294	325	355	21	386	417	445	476	506	537	567	598	629	659	690	720
22	22	53	81	112	142	173	203	234	265	295	326	356	22	387	418	446	477	507	538	568	599	630	660	691	721
23	23	54	82	113	143	174	204	235	266	296	327	357	23	388	419	447	478	508	539	569	600	631	661	692	722
24	24	55	83	114	144	175	205	236	267	297	328	358	24	389	420	448	479	509	540	570	601	632	662	693	723
25	25	56	84	115	145	176	206	237	268	298	329	359	25	390	421	449	480	510	541	571	602	633	663	694	724
26	26	57	85	116	146	177	207	238	269	299	330	360	26	391	422	450	481	511	542	572	603	634	664	695	725
27	27	58	86	117	147	178	208	239	270	300	331	361	27	392	423	451	482	512	543	573	604	635	665	696	726
28	28	59	87	118	148	179	209	240	271	301	332	362	28	393	424	452	483	513	544	574	605	636	666	697	727
29	29	....	88	119	149	180	210	241	272	302	333	363	29	394	....	453	484	514	545	575	606	637	667	698	728
30	30	....	89	120	150	181	211	242	273	303	334	364	30	395	....	454	485	515	546	576	607	638	668	699	729
31	31	....	90	....	151	....	212	243	....	304	....	365	31	396	....	455	....	516	....	577	608	....	669	....	730

Rule:—Ascertain by Table I the number of days from the first of the two days, and from Table II the number of days from the second, and deduct the former from the latter.

Example:—How many days are there between September 14 and July 6? Against September 14 in Table I find 63; against July 6 in Table II find 552: 552—63=295 the answer.

* In leap years 1 day must be added after February 28

CHRONOLOGY—THIRD YEAR OF GREAT WAR

- Aug. 3.—Sir Roger Casement is hanged.
- Aug. 4.—Turkish troops attack British positions in Egypt, but are repulsed with heavy losses. French recapture Thiaumont.
- Aug. 6.—British troops advance 500 yards from Pozieres. Baron Wimborne appointed Lord Lieutenant of Ireland.
- Aug. 7.—Turks recapture Bitlis in Asia Minor from Russian troops. Austrian aeroplanes raid Venice.
- Aug. 9.—Italians capture Gorizia. Zeppelins raid the east coast of England causing twenty-three casualties.
- Aug. 10.—Russians are forced to retreat in Persia. Stanislaw is captured by the Russians.
- Aug. 15.—Allied forces close in on German East Africa.
- Aug. 16.—French make brilliant advances on the Somme front. German claims that seventy-four merchantmen were sunk by submarines during July.
- Aug. 17.—General Ruzsky is appointed commander in chief of the northern armies of Russia.
- Aug. 19.—British cruisers *Nottingham* and *Falmouth* sunk by German submarines in North Sea.
- Aug. 24.—French and British troops make further gains on Somme front.
- Aug. 28.—Roumania declares war on Austria-Hungary.
- Aug. 29.—Roumanian army begins invasion of Transylvania in two directions.
- Aug. 30.—Field-Marshal von Hindenburg succeeds General von Falkenhayn as Chief of the General Staff of the German army.
- Sept. 1.—Italians in Albania and Serbians in Macedonia begin offensives against Bulgarians. Greek army joins rebellion against King.
- Sept. 2.—French fleet captures seven Teuton merchant vessels in the Greek harbor of Piraeus.
- Sept. 3.—Dar es Salam, German East Africa, taken by British forces. Zeppelins raid London. Roumanians capture six towns in Transylvania.
- Sept. 4.—Allies' secret police arrest German propagandists in Athens. Teutonic allies under von Mackensen invade Dobruja, a Roumanian province.
- Sept. 5.—Russians claim to have captured 20,000 Austrians in two weeks.
- Sept. 10.—Von Mackensen takes Silistria.
- Sept. 15.—Lloyd George, British War Minister, denies misuse of mail to obtain American trade secrets.
- Sept. 17.—Serbians defeat Bulgarians at Kaimakalan. German Admiralty issues statement that "126 hostile merchant ships totalling 170,679 tons and 35 neutral vessels totalling 38,568 tons, were destroyed by submarines during August."
- Sept. 18.—Austrians aided by Turkish troops force Russians to retreat.
- Sept. 19.—Roumanians are defeated by Germans at Szurdok Pass and retreat toward Constantza.
- Sept. 21.—Revolution headed by ex-Premier Venezelos, breaks out in Crete.
- Sept. 23.—Italians advance on Trentino front.
- Sept. 25.—British advance on Combes and take three towns. Zeppelins, in raid on English coast, kill 36 and wound 26 non-combatants.
- Sept. 26.—Allies capture Combes and Thiepval. Turks drive Russians back 22 miles in Persia.
- Sept. 30.—Roumanians in Transylvania, are forced to retreat. British losses for September are 111,549 officers and men.
- Oct. 1.—Zeppelin shot down near London.
- Oct. 2.—Roumanian troops cross into Bulgaria.
- Oct. 5.—Cunard liner *Franconia* is torpedoed in the Mediterranean.
- Oct. 7.—British capture five Bulgarian villages. German submarine U-53 arrives at Newport, R. I.
- Oct. 8.—Six vessels torpedoed off Nantucket Island by submarine U-53. Austro-Germans retake Kronstadt.
- Oct. 9.—2 U-boats sunk off Archangel by Russian torpedo-boat.
- Oct. 12.—Italians claim to have taken 30,881 prisoners since August 6. French press toward Morval.
- Oct. 13.—Von Falkenhayn's forces recapture all of Transylvania recently occupied by the Roumanians. Italians force Austrians to retire on Carso front.
- Oct. 16.—Allies recognize provisional government set up by ex-Premier Venezelos on Island of Crete. Teutons begin offensive in the Carpathians.
- Oct. 17.—Allies seize remaining three Greek battleships and land marines at Piraeus. Germans repulse Russians on Volhynian front and take 1,900 prisoners.
- Oct. 18.—Sailly-Saillisel falls to the French after hard fighting.
- Oct. 19.—Serbians advance in Macedonia and capture Brod.
- Oct. 20.—Three British transports are sunk in the Mediterranean, by submarines. Germans regain ground lost to the British in the Somme sector. Serbians make advances east of Monastir. Von Mackensen resumes offensive in the Dobruja, forcing Roumanians back.
- Oct. 21.—British advance in the Somme sector. The Austrian Premier, Count Stuerghk, is assassinated in Vienna. Germans reach coast of Black Sea in Roumania. Teutons capture Russian positions southeast of Lemberg.
- Oct. 23.—Constantza, Roumania's chief port of the Black Sea, is captured by the Teutons.
- Oct. 24.—Germans drive the Roumanians sixteen miles and capture 6,700 prisoners. French retake Douaumont, Thiaumont and two miles of trenches, taken by Germans by two months' fighting.
- Oct. 25.—Tchernavoda falls to von Mackensen's army. Von Falkenhayn storms Vulcan Pass and reaches point 75 miles from Bukharest.
- Oct. 26.—Ten German destroyers raid English Channel and sink a torpedo-boat destroyer and seven vessels.
- Oct. 27.—Teutons drive the Roumanian army forty miles past Tchernavoda.
- Oct. 28.—Steamship *Lanao*, flying American flag, sunk by submarine.
- Oct. 29.—Capt. Boelke, famous German aviator, is killed in aeroplane battle. Roumanians check German advances.
- Oct. 30.—British steamship *Marina* is torpedoed by German submarine off Irish coast. Six Americans drowned.
- Oct. 31.—British losses for October are 4,331 officers and 102,702 men.
- Nov. 1.—Submarine *Deutschland* arrives at New London, Conn., with a \$10,000,000 cargo. British capture three villages on Macedonian front. Von Falkenhayn's forces drive Roumanians twelve miles inside border.
- Nov. 2.—Italians gain on twelve mile front and capture 5,000 prisoners. Fort Vaux is evacuated by the German army.
- Nov. 3.—Italians continue to advance and take 3,500 more prisoners.
- Nov. 5.—French take two more towns outside of Verdun. Russian Poland is proclaimed an independent state by Germany and Austria-Hungary.
- Nov. 7.—*Arabia*, a passenger vessel, is sunk by German submarine.
- Nov. 8.—Belgium protests against deportations of its able-bodied men, by German officials.
- Nov. 9.—Chancellor von Bethmann-Hollweg declares Germany is ready to enter a league of peace on condition it insures freedom of the seas. Roumanians retake Hirsowa in the Dobruja and drive Germans back. U-boats break through British blockade and raid French coast.
- Nov. 12.—French, under General Foch recapture Saillisel.
- Nov. 14.—U. S. protests to Germany on the deportation of the Belgians. British capture Beaucourt and 5,000 prisoners. Great Britain rejects U. S. demand to lift blacklist.
- Nov. 16.—Allies drive to within four miles of Monastir and take twelve towns.
- Nov. 19.—Serbians recapture Monastir.
- Nov. 21.—Emperor Francis Joseph of Austria-Hungary dies and is succeeded by Karl Francis Joseph. Craiova, Roumania captured by von Falkenhayn.
- Nov. 22.—Britannic, transporting wounded soldiers sunk by German submarine in Aegean Sea.
- Nov. 23.—France appoints a Minister of Provisions to control food supply.
- Nov. 24.—Orsova is captured by von Mackensen.
- Nov. 28.—Two Zeppelins are shot down in England.
- Dec. 3.—Lloyd George, British Secretary for War, resigns.
- Dec. 4.—Germans shell Bukharest.
- Dec. 5.—Premier Asquith resigns.
- Dec. 6.—Bukharest is captured by Germans. Lloyd George is appointed Premier.
- Dec. 9.—U. S., in note to Germany, condemns deportation of Belgian citizens. Von Mackensen captures 18,000 Roumanians.
- Dec. 10.—Lloyd George names War Council of five and other cabinet members.

VOTE FOR PRESIDENT, 1916

The list of votes given below were the latest obtainable before this book went to press.

State	Electoral Vote		Popular Vote	
	Democratic	Republican	Wilson	Hughes
Alabama	12		89,000	30,000
Arizona	3		29,641	19,363
Arkansas	9		85,000	37,000
California	13		466,269	462,838
Colorado	6		158,257	95,716
Connecticut		7	99,687	106,378
Delaware		3	26,111	27,909
Florida	6		60,000	12,000
Georgia	14		109,200	28,000
Idaho		4	68,000	54,500
Illinois		29	869,152	1,044,608
Indiana		15	333,466	339,437
Iowa		13	215,918	279,085
Kansas		10	315,000	277,000
Kentucky		13	219,000	193,000
Louisiana		10	68,000	9,000
Maine		6	64,148	69,491
Maryland		8	133,211	113,773
Massachusetts		18	247,327	268,361
Michigan		15	237,114	308,122
Minnesota		12	176,577	177,285
Mississippi		10	91,000	5,000
Missouri		18	376,000	345,000
Montana		4	80,927	54,608
Nebraska		8	134,000	114,000
Nevada		3	12,448	9,842
New Hampshire		4	42,905	42,723
New Jersey		14	209,332	264,320
New Mexico		3	34,545	33,251
New York		45	756,010	863,987
North Carolina		12	158,000	110,000
North Dakota		5	54,449	52,831
Ohio		24	578,000	496,720
Oklahoma		10	140,000	110,000
Oregon		5	116,550	123,570
Pennsylvania		38	510,747	695,734
Rhode Island		5	39,353	44,159
South Carolina		9	68,000	1,500
South Dakota		5	45,449	50,892
Tennessee		12	138,647	97,553
Texas		20	228,000	58,000
Utah		4	77,381	48,948
Vermont		4	21,832	38,254
Virginia		12	60,107	21,132
Washington		7	197,000	183,000
West Virginia		8	139,013	141,432
Wisconsin		13	194,000	220,000
Wyoming		3	25,617	19,998
Totals	276	255	8,599,390	8,199,320
Plurality	21		400,070	

Allen L. Benson the Socialist candidate for President received about 1,300,000 votes.

Frank J. Hanley, the Prohibition candidate for President received about 350,000 votes.

These votes are the largest amount ever polled by either party.

PROHIBITION STATES

Prohibition now exists in almost every state of the Union. Some states have state-wide prohibition and others have prohibition in counties and towns, local option. Following is a list of partial or state-wide prohibition states.

GRAIN STANDARD ACT

The United States Grain Standards Act became a law August 11, 1916. The act authorized the Secretary of Agriculture to investigate the handling and grading of grain and to establish, as soon as might be, standards for corn, wheat, rye, oats, barley, flaxseed and other grains. Not less than ninety days' public notice must be given in advance of the date on which any such standard becomes effective. Whenever such standards are established for any grain, the act forbids the shipment or delivery for shipment, in interstate or foreign commerce originating in the United States, or any such grain which is sold, offered for sale, or consigned for sale by grade, unless it is inspected and graded by a licensed inspector, either at the place of shipment, at a point in transit, or at the destination. In case no licensed inspector is located either at the point of shipment or

Alabama	State-wide.
Alaska	Throughout the territory.
Arizona	State-wide.
Arkansas	State-wide.
California	In some towns, local option.
Colorado	State-wide.
Delaware	In some towns in Kent and Sussex counties, local option.
Florida	In some towns, local option, forty-five counties dry, nine wet.
Georgia	State-wide.
Idaho	State-wide.
Illinois	In central and southern cities and towns, local option, fifty-three counties dry, forty-nine wet.
Indiana	Thirty-three dry and fifty-nine wet counties, local option.
Iowa	State-wide.
Kansas	State-wide.
Kentucky	In one hundred five counties out of one hundred twenty, local option.
Louisiana	In some towns, local option.
Maine	State-wide.
Michigan	State-wide.
Minnesota	In forty-five counties out of eighty-six, county option.
Mississippi	State-wide.
Missouri	In eighty-one counties out of one hundred and fourteen, local option.
Montana	State-wide.
Nebraska	State-wide.
New Jersey	In some towns, local option.
New York	In some towns, local option.
North Carolina	State-wide.
North Dakota	State-wide.
Oklahoma	State-wide.
Oregon	State-wide.
Rhode Island	In some towns, local option.
South Carolina	State-wide.
South Dakota	State-wide.
Tennessee	State-wide.
Texas	One hundred seventy-eight counties dry, fifty-two almost dry, twenty wet.
Utah	Largely dry.
Vermont	Two hundred twenty-six towns dry, twenty wet, local option.
Virginia	State-wide.
Washington	State-wide.
West Virginia	State-wide.
Wisconsin	In some towns, local option.

PROHIBITION IN FOREIGN COUNTRIES

With British Columbia's entrance into the "Dry" ranks by the recent election, Canada now has prohibition in all her provinces with the exception of New Brunswick and Quebec. New Brunswick, however will join the "Drys" in 1917.

On November 26, 1915, Newfoundland accepted prohibition by a majority of four hundred four votes.

Prohibition was established in Iceland in 1915.

France prohibits the sale of absinthe, and Russia prohibits the sale of vodka.

at the point of destination, the grain may be shipped without inspection, in which event either party to the transaction may refer any dispute as to the grade to the Secretary of Agriculture.

NEW AMERICAN AVIATION RECORD.

Two aviation records were surpassed, when Miss Ruth Law flew from Chicago to Homell, N. Y., a distance of 592 miles without a stop. After another stop at Binghamton, she arrived at New York City, on Nov. 20, 1916, flying 897 miles in 8 hrs. and 55½ min., traveling at the rate of 100 miles per hour. She established a new American non-stop record and also the World's record for women. The World's non-stop record is 812½ miles, made by Sub-Lieut. Marchal of France, on July 20, 1916.

GOVERNORS OF STATES OF UNITED STATES

State	Governor	Party	Term Years	Term Expires	State	Governor	Party	Term Years	Term Expires
Alabama.....	Charles Henderson.....	D	4	Jan. — 1919	Nebraska.....	Keith Neville.....	D	2	Jan. — 1919
Arizona.....	George W. P. Hunt.....	D	2	Jan. — 1919	Nevada.....	Emmet D. Boyle.....	D	4	Jan. — 1919
Arkansas.....	Chas. H. Brough.....	D	2	Jan. — 1919	N. Hampshire.....	Henry W. Keyes.....	R	2	Jan. — 1919
California.....	Hiram W. Johnson.....	P	4	Jan. — 1919	New Jersey.....	Walter E. Edge.....	R	3	Jan. 15, 1920
Colorado.....	Julius C. Guntter.....	D	2	Jan. — 1919	New Mexico.....	E. C. DeBaca.....	D	5	Dec. — 1921
Connecticut.....	Marcus H. Holcomb.....	R	2	Jan. — 1919	New York.....	Charles S. Whitman.....	R	2	Dec. 31, 1918
Delaware.....	John G. Townsend.....	R	4	Jan. 21, 1921	North Carolina.....	Thomas H. Bicket.....	D	4	Jan. — 1921
Florida.....	Sidney J. Catts.....	Proh.	4	Jan. — 1921	North Dakota.....	Lynn J. Frazier.....	D	2	Jan. — 1919
Georgia.....	Hugh M. Dorsey.....	D	2	June — 1919	Ohio.....	James M. Cox.....	R	2	Jan. 1, 1919
Idaho.....	Moses Alexander.....	D	2	Jan. — 1919	Oklahoma.....	R. L. Williams.....	D	4	Jan. — 1919
Illinois.....	Frank O. Lowden.....	R	4	Jan. — 1921	Oregon.....	James Withycombe.....	R	4	Jan. 11, 1919
Indiana.....	James P. Goodrich.....	R	4	Jan. — 1921	Pennsylvania.....	M. C. Brumbaugh.....	R	4	Jan. 17, 1919
Iowa.....	W. L. Harding.....	R	2	Jan. — 1919	Rhode Island.....	R. L. Beekman.....	R	2	Jan. — 1919
Kansas.....	Arthur Capper.....	R	2	Jan. — 1919	South Carolina.....	Richard I. Manning.....	D	2	Jan. — 1919
Kentucky.....	A. C. Stanley.....	D	4	Dec. 31, 1919	South Dakota.....	Peter Norbeck.....	R	2	Jan. — 1919
Louisiana.....	Ruffin G. Pleasant.....	D	4	May — 1920	Tennessee.....	Thomas C. Rye.....	D	2	Jan. — 1919
Maine.....	Carl E. Milliken.....	R	2	Jan. — 1920	Texas.....	James E. Ferguson.....	D	2	Jan. — 1919
Maryland.....	Emerson C. Harrington.....	D	4	Jan. — 1920	Utah.....	Simon Bamberger.....	D	4	Jan. — 1919
Massachusetts.....	Sam'l. W. McCall.....	R	1	Jan. — 1918	Vermont.....	Horace F. Graham.....	R	2	Jan. — 1919
Michigan.....	Albert S. Sleeper.....	R	2	Jan. 1, 1919	Virginia.....	H. C. Stuart.....	D	4	Feb. 1, 1918
Minnesota.....	J. A. A. Burnquist.....	R	2	Jan. 1, 1919	Washington.....	Ernest Lister.....	D	4	Jan. — 1921
Mississippi.....	Theo. C. Bilbo.....	D	4	Jan. — 1920	West Virginia.....	John J. Cornwell.....	D	4	Mar. 4, 1921
Missouri.....	Frederick D. Gardner.....	D	4	Jan. — 1921	Wisconsin.....	E. L. Phillipp.....	D	2	Jan. — 1919
Montana.....	Samuel V. Stewart.....	D	4	Jan. — 1921	Wyoming.....	J. B. Kendrick.....	D	4	Jan. — 1919

INDUSTRIAL PROGRESS FROM WASHINGTON TO WILSON

WASHINGTON TO MADISON

1790. American sailing ship circles the globe.
 1791. Anthracite coal in Pennsylvania.
 1793. Whitney's cotton gin.
 1807. Clermont steams up the Hudson.
 1811. Steamboats on the Ohio.
 1812. Steamboats on the Mississippi.

MADISON TO VAN BUREN

1819. Steamboats on the great lakes; first savings bank (in Philadelphia).
 1819. Savannah steams to Liverpool in 26 days.
 1820. Steamboat runs from New York to New Orleans.
 1825. Erie Canal opened.
 1830. Fourteen miles of B. & O. R. R. opened.
 1831. First American locomotive.
 1834. McCormick reaper.

VAN BUREN TO LINCOLN

1837. Morse telegraph.
 1841. Sewing machine.
 1842. Railroad from New York to Buffalo.
 1844. Telegraph from Baltimore to Washington.
 1849. Gold stamped to California; first screw propeller
 1850. Copper mines on the lakes.
 1853. New York Clearing House opened.
 1858. Sleeping cars used.

LINCOLN TO CLEVELAND

1865. Bessemer Steel first manufactured.
 1869. Union Pacific completed.
 1876. Bell telephone.
 1878. Edison electric light.
 1880. Broadway lighted by electricity.
 1883. Electric railway (in Baltimore).
 1884. Natural gas discovered.

CLEVELAND TO WILSON

1887. Gold in Alaska.
 1888. Linotype typesetting machines.
 1890. American pig iron output surpasses Great Britain's.
 1893. Great Northern R. R. built to coast.
 1895. Long distance electric power transmission.
 1897. Opening up of foreign markets for American manufactures.
 1901. Steel Corporation.
 1906. Wireless telegraphy across the ocean.
 1907. Electric trains on the N. Y. Central.
 1908. American battleship fleet circles the globe.
 1909. Air ships fly about New York Harbor.
 1912. Practicability of Aeroplane.
 1913. Panama Canal completed.
 1914. Perfection of Wireless Telephony.
 1914. Gyroscopic stabilizer; gyroscope compass.
 1915. Thermophone.
 1916. Wireless telephone put in operation.

A GENERATION OF DISASTROUS FIRES

Date and building	Deaths	Date and building	Deaths
Dec. 5, 1876, Brooklyn Theatre, Brooklyn.....	289	Mar. 4, 1908, school, Collingwood, Ohio.....	174
Dec. 8, 1881, Ring Theatre, Vienna, Austria.....	350	Jan. 4, 1908, Rhodes Theatre, Boyertown, Pa.....	169
April 30, 1884, poorhouse, Van Buren County, Mich.....	30	Feb. 2, 1909, theatre in Acapulco, Mexico.....	300
Feb. 12, 1885, Blockley Almshouse, Philadelphia.....	50	Mar. 25, 1911, factory, 23 Washington Pl., N. Y. City.....	145
May 25, 1887, Opera Comique, Paris.....	200	Aug. 26, 1911, moving picture theatre, Canonsburg, Pa.....	26
Sept. 4, 1887, theatre, Exeter, Portugal.....	200	Jan. 9, 1912, Equitable Life Bldg., 120 B'way, N. Y. C.....	6
Mar. 21, 1888, Banquet Theatre, Portugal.....	200	Nov. 23, 1912, Starch factory, Waukegan, Ill.....	25
July 21, 1889, building at Lu-Chow, China.....	400	Apr. 23, 1912, Mine explosion, Pittsburgh, Pa.....	96
Jan. 9, 1890, Shantung Theater, China.....	250	Aug. 2, 1913, Mine explosion, Tower City.....	18
Feb. 6, 1892, Hotel Royal, New York City.....	28	Aug. 3, 1913, Mine explosion, Glasgow, Scotland.....	22
April 27, 1892, Central Theatre, Philadelphia.....	28	Oct. 14, 1913, Mine explosion, Cardiff, Wales.....	400
Aug. 12, 1896, Ching Un Dist. Theatre, China.....	200	Dec. 3, 1913, Lodging house, Boston, Mass.....	30
May 4, 1897, Charity Bazaar, Paris.....	150	Dec. 25, 1913, Theatre panic, Calumet, Mich.....	72
Mar. 17, 1899, Windsor Hotel, N. Y. City.....	145	June 25, 1914, Salem, Mass. 1,000 buildings.....	4
June 30, 1900, Hoboken piers and ships.....	115	Oct. 28, 1915, Parochial School, Peabody, Mass.....	21
Sept. 20, 1902, Shiloh Baptist Church, Birmingham, Ala.....	602	July 30, 1916, Ammunition explosion, Black Tom Island, Jersey City, N. J. loss of \$20,000,000.....	2
Dec. 30, 1903, Iroquois Theatre, Chicago.....			

65th CONGRESS OF THE UNITED STATES, 1917

UNITED STATES SENATE

Members of the Senate are elected for six years by the Electorate of the various States Salary, \$7,500 per year and mileage.

This list of the members of the 65th Congress is in accordance with the latest available reports of the elections before this book went to press.

Term Expires.	President, Vice-President, pro tem, Secretary	Term Expires.	NEBRASKA	Home Address
1919	John H. Bankhead, D.	1919	George W. Norris, R.	McCook
1923	Henry F. Ashurst, D.	1923	Gilbert M. Hitchcock, D.	Omaha
1919	John H. Bankhead, D.	1919	Francis G. Newlands, D.	Reno
1923	Henry F. Ashurst, D.	1923	Key Pittman, D.	Tonahap
1919	Joe T. Robinson, D.	1919	Henry F. Hollis, D.	Concord
1923	William F. Kirby, D.	1923	Jacob H. Gallinger, R.	Concord
1919	Joe T. Robinson, D.	1919	William Hughes, D.	Paterson
1923	James D. Phelan, D.	1923	Jos. S. Frelinghuysen, R.	Raritan
1919	Hiram W. Johnson, R.	1919	Andrieus A. Jones, D.	Las Vegas
1923	Charles S. Thomas, D.	1923	Albert B. Fall, R.	Three Rivers
1919	John F. Shafroth, D.	1919	William W. Wadsworth, Jr., R.	Groveland
1923	Frank B. Brandegee, R.	1923	James M. Calder, R.	Brooklyn
1919	George P. McLean, R.	1919	Furnifold McL. Simmons, D.	Newbern
1923	J. O. Wolcott, D.	1923	Lee S. Overman, D.	Salisbury
1919	Willard Saulsbury, D.	1919	Asle J. Gronna, R.	Lakota
1923	Duncan U. Fletcher, D.	1923	Porter J. McCumber, R.	Wahpeton
1919	Park M. Trammell, D.	1919	Atlee Pomerene, D.	Canton
1923	Thomas W. Hardwick, D.	1923	Warren G. Harding, R.	Marion
1919	Hoke Smith, D.	1919	Thomas P. Gore, D.	Lawton
1923	William E. Borah, R.	1923	Robert L. Owen, D.	Muskogee
1919	James H. Borah, R.	1919	Harry Lane, D.	Portland
1923	Lawrence Y. Sherman, R.	1923	George E. Chamberlain, D.	Portland
1919	James Hamilton Lewis, D.	1919	Boies Penrose, R.	Philadelphia
1923	James E. Watson, R.	1923	Philander C. Knox, R.	Pittsburgh
1919	Harry S. New, R.	1919	Peter G. Gerry, D.	Warwick Neck
1923	Albert B. Cummins, R.	1923	LeBaron B. Colt, R.	Bristol
1919	William S. Kenyon, R.	1919	Benjamin R. Tillman, D.	Trenton
1923	Charles Curtis, R.	1923	Ellison D. Smith, D.	Florence
1919	William H. Thompson, D.	1919	Ed. S. Johnson, D.	Yankton
1923	Ollie M. James, D.	1923	Thomas Sterling, R.	Vermilion
1919	J. C. W. Beckham, D.	1919	K. D. McKellar, D.	Memphis
1923	Joseph E. Ransdell, D.	1923	John K. Shields, D.	Knoxville
1919	Robert F. Broussard, D.	1919	Morris Sheppard, D.	Texas
1923	Frederick Hale, R.	1923	Charles A. Culberson, D.	Texas
1919	Bert M. Fernald, R.	1919	Reed Smoot, R.	Provo
1923	J. Erwin France, R.	1923	Wm. H. King, D.	Salt Lake City
1919	John Walter Smith, D.	1919	Carroll S. Page, R.	Hyde Park
1923	Henry Cabot Lodge, R.	1923	William P. Dillingham, R.	Montpelier
1919	John W. Weeks, R.	1919	Claude A. Swanson, D.	Chatham
1923	Charles E. Townsend, R.	1923	Thomas S. Martin, D.	Charlottesville
1919	William Alden Smith, R.	1919	Miles Poindexter, R.	Spokane
1923	Frank B. Kellogg, R.	1923	Wesley L. Jones, R.	North Yakima
1919	Knute Nelson, R.	1919	Nathan Goff, R.	Clarksburg
1923	John Sharp Williams, D.	1923	H. Sutherland, R.	Elkins
1919	James K. Vardaman, D.	1919	Robert M. LaFollette, R.	Madison
1923	James A. Reed, D.	1923	Paul O. Husting, D.	Mayville
1919	William J. Stone, D.	1919	Francis E. Warren, R.	Cheyenne
1923	Thomas J. Walsh, D.	1923	John B. Kendrick, D.	Cheyenne
1919	Henry L. Myers, D.	1919	Republicans	44
1923	Henry L. Myers, D.	1923	Democrats	52
			Total.	96

HOUSE OF REPRESENTATIVES

Representatives are elected for two years by direct vote. Salary \$7,500 per year and mileage. Salary of Speaker, \$12,000

DIST. ALABAMA

- 1 Oscar L. Gray, D., Butler.
- 2 S. H. Dent, Jr., D., Montgomery.
- 3 Henry B. Steagall, D., Ozark.
- 4 Fred L. Blackmon, D., Anniston.
- 5 J. Thomas Heflin, D., Lafayette.
- 6 W. B. Oliver, D., Tuscaloosa.
- 7 John L. Burnett, D., Gadsden.
- 8 Edward B. Almon, D., Tuscumbia.
- 9 George Huddleston, D., Birmingham.
- 10 William B. Bankhead, D., Jasper.

ARIZONA (At Large)
Carl Hayden, D., Phoenix.

ARKANSAS

- 1 Thaddeus H. Caraway, D., Jonesboro.
- 2 William A. Oldfield, D., Batesville.
- 3 John N. Tillman, D., Fayetteville.
- 4 Otis Wingo, D., De Queen.
- 5 Henderson M. Jacoway, D., Dardanelle.
- 6 Samuel M. Taylor, D., Pine Bluff.
- 7 William S. Goodwin, D., Warren.

CALIFORNIA

- 1 Clarence F. Lea, D., Santa Rosa.
- 2 John E. Raker, D., Alturas.
- 3 Charles F. Curry, R., Sacramento.
- 4 Julius Kahn, R., San Francisco.
- 5 John I. Nolan, D., San Francisco.
- 6 J. A. Elston, R., Berkeley.
- 7 Denver S. Church, D., Fresno.
- 8 Everis A. Hayes, R., San Jose.
- 9 Charles H. Randall, Proh., Los Angeles.
- 10 Henry Z. Osborne, R., Los Angeles.
- 11 William Kettner, D., San Diego.

COLORADO

- 1 Benj. C. Hilliard, D., Denver.
- 2 Charles B. Timberlake, R., Sterling.
- 3 Edward Keating, D., Pueblo.
- 4 E. T. Taylor, D., Glenwood Springs.

CONNECTICUT

- 1 Augustus Lonergan, D., Hartford.
- 2 Richard P. Freeman, R., New London.
- 3 John Q. Tilson, R., New Haven.
- 4 Ebenezer J. Hill, R., Norwalk.
- 5 James P. Glynn, R., Winsted.

DELAWARE (At Large)
Albert F. Polk, D., Georgetown.

FLORIDA

- 1 H. J. Drane, D., Lakeland.
- 2 Frank Clark, D., Gainesville.
- 3 Walter Kehoe, D., Pensacola.
- 4 W. J. Sears, D., Kissimmee.

GEORGIA

- 1 J. W. Overstreet, D., Statesboro.
- 2 Frank Park, D., Sylvester.
- 3 Charles R. Crisp, D., Americus.
- 4 William C. Adamson, D., Carrollton.
- 5 William S. Howard, D., Kirkwood.
- 6 J. W. Wise, D., Fayetteville.
- 7 Gordon Lee, D., Chickamauga.
- 8 Samuel J. Tribble, D., Athens.
- 9 Thomas M. Bell, D., Gainesville.
- 10 Carl Vinson, D., Milledgeville.
- 11 John R. Walker, D., Valdosta.
- 12 W. W. Larsen, D., Dublin.

IDAHO (At Large)
Burton L. French, R., Moscow.
Addison T. Smith, R., Twin Falls.

DIST. ILLINOIS (At Large)

- William E. Mason, R., Chicago.
- Medill McCormick, R., Chicago.
- 1 Martin B. Madden, R., Chicago.
- 2 James R. Mann, R., Chicago.
- 3 William W. Wilson, R., Chicago.
- 4 Charles Martin, D., Chicago.
- 5 Adolph J. Sabath, D., Chicago.
- 6 James McAndrews, D., Chicago.
- 7 Niels Joul, R., Chicago.
- 8 Thomas Gallagher, D., Chicago.
- 9 Fred A. Britten, R., Chicago.
- 10 George E. Foss, R., Chicago.
- 11 Ira C. Copley, P., Aurora.
- 12 Charles E. Fuller, R., Belvidere.
- 13 John C. McKenzie, R., Elizabeth.
- 14 William J. Graham, R., Aledo.
- 15 Edward J. King, R., Galesburg.
- 16 Clifford Ireland, R., Peoria.
- 17 John A. Sterling, R., Bloomington.
- 18 Joseph G. Cannon, R., Danville.
- 19 William B. McKinley, R., Champaign.
- 20 Henry T. Rainey, D., Carrollton.
- 21 Loren E. Wheeler, R., Springfield.
- 22 W. A. Rodenberg, R., East St. Louis.
- 23 Martin D. Foster, D., Quincy.
- 24 Thomas S. Williams, R., Louisville.
- 25 E. E. Denison, R., Marion.

INDIANA

- 1 George K. Denton, D., Evansville.
- 2 Oscar E. Bland, R., Linton.
- 3 William E. Cox, D., Jasper.
- 4 Lincoln Dixon, D., North Vernon.
- 5 Everett Sanders, R., Terre Haute.
- 6 D. W. Comstock, R., Richmond.
- 7 Merrill Moores, R., Indianapolis.
- 8 Albert H. Vestal, R., Anderson.
- 9 Fred S. Purnell, R., Attica.
- 10 William R. Wood, R., Lafayette.
- 11 Milton Krauss, R., Peru.
- 12 L. W. Fairfield, R., Angola.
- 13 Henry A. Barnhart, D., Rochester.

IOWA

- 1 Charles A. Kennedy, R., Montrose.
- 2 Harry E. Hull, R., Williamsburg.
- 3 Burton E. Sweet, R., Waverly.
- 4 Gilbert N. Haugen, R., Northwood.
- 5 James W. Good, R., Cedar Rapids.
- 6 C. W. Ramseyer, R., Bloomfield.
- 7 Cassius C. Dowell, R., Des Moines.
- 8 Horace M. Townner, R., Corning.
- 9 William R. Green, R., Council Bluffs.
- 10 Frank P. Woods, R., Estherville.
- 11 G. C. Scott, R., Sioux City.

KANSAS

- 1 Daniel R. Anthony, R., Leavenworth.
- 2 E. C. Little, R., Kansas City.
- 3 Philip P. Campbell, R., Pittsburg.
- 4 Dudley Doolittle, D., Strong City.
- 5 Guy T. Helvering, D., Maryville.
- 6 John R. Connelly, D., Colby.
- 7 Jouett Shouse, D., Kinsley.
- 8 W. A. Ayres, D., Wichita.

KENTUCKY

- 1 Alben W. Barkley, D., Paducah.
- 2 David H. Kincheloe, D., Madisonville.
- 3 R. Y. Thomas, Jr., D., Central City.
- 4 Ben Johnson, D., Bardstown.
- 5 Swager Sherley, D., Louisville.
- 6 Arthur B. Rouse, D., Burlington.
- 7 James C. Cantrill, D., Georgetown.
- 8 Harvey Helm, D., Stanford.

DIST. KENTUCKY—Cont'd

- 9 William J. Fields, D., Olive Hill.
- 10 John W. Langley, R., Pikeville.
- 11 Caleb Powers, R., Barbourville.

LOUISIANA

- 1 Albert Estopinal, D., Estopinal.
- 2 H. Garland Dupre, D., New Orleans.
- 3 W. P. Martin, P., Thibodaux.
- 4 John T. Watkins, D., Minden.
- 5 Riley J. Wilson, D., Harrisonburg.
- 6 Jared Y. Sanders, D., Franklin.
- 7 Ladislav Lazaro, D., Washington.
- 8 James B. Aswell, D., Natchitoches.

MAINE

- 1 Louis B. Goodall, R., Sanford.
- 2 Wallace H. White, Jr., R., Lewiston.
- 3 John A. Peters, R., Ellsworth.
- 4 Ira G. Hersey, R., Houlton.

MARYLAND

- 1 Jesse D. Price, D., Salisbury.
- 2 J. Fred C. Talbott, D., Lutherville.
- 3 Charles P. Coady, D., Baltimore.
- 4 J. Charles Linthicum, D., Baltimore.
- 5 Sydney E. Mudd, R., La Plata.
- 6 Frederick N. Zihlman, R., Cumberland.

MASSACHUSETTS

- 1 Allen T. Treadway, R., Stockbridge.
- 2 Frederick H. Gillett, R., Springfield.
- 3 Calvin D. Paige, R., Southbridge.
- 4 Samuel E. Winslow, R., Worcester.
- 5 John J. Rogers, R., Lowell.
- 6 Augustus P. Gardner, R., Hamilton.
- 7 Michael F. Phelan, D., Lynn.
- 8 Frederick W. Dallinger, R., Cambridge.
- 9 Alvan T. Fuller, Ind.
- 10 Peter F. Tague, D., Boston.
- 11 George H. Tinkham, R., Boston.
- 12 James A. Gullivan, D., Boston.
- 13 William H. Carter, R., Needham.
- 14 Henry L. Kincaide, R., Quincy.
- 15 William S. Greene, R., Fall River.
- 16 Joseph Walsh, R., New Bedford.

MICHIGAN

- 1 Frank E. Doremus, D., Detroit.
- 2 Samuel W. Beakes, D., Ann Arbor.
- 3 John M. C. Smith, R., Charlotte.
- 4 Edward L. Hamilton, R., Niles.
- 5 Carl E. Mapes, R., Grand Rapids.
- 6 Patrick H. Kelley, R., Lansing.
- 7 Louis C. Cramton, R., Lapeer.
- 8 Joseph W. Fordney, R., Saginaw.
- 9 James C. McLaughlin, R., Muskegon.
- 10 Gilbert A. Currie, R., Midland.
- 11 Frank D. Scott, R., Alpena.
- 12 W. Frank James, R., Hancock.
- 13 Charles A. Nichols, R., Detroit.

MINNESOTA

- 1 Sydney Anderson, R., Lanesboro.
- 2 Franklin F. Ellsworth, R., Mankato.
- 3 Charles R. Davis, R., St. Peter.
- 4 Carl C. Van Dyke, D., St. Paul.
- 5 Ernest Lundeen, R., Minneapolis.
- 6 Harold Knutson, R., St. Cloud.
- 7 Andrew J. Volstead, R., Granite Falls.
- 8 Clarence B. Miller, R., Duluth.
- 9 Halvor Steenerson, R., Crookston.
- 10 Thomas D. Schall, P., Minneapolis.

MISSISSIPPI

- 1 Ezekiel S. Candler, D., Corinth.

HOUSE OF REPRESENTATIVES—Cont'd

DIST. MISSISSIPPI—Cont'd

- 2 Hubert D. Stephens, D., New Albany.
- 3 B. G. Humphreys, D., Greenville.
- 4 Thomas U. Sisson, D., Winona.
- 5 William W. Venable, D., Meridian.
- 6 Bryon P. Harrison, D., Gulfport.
- 7 Percy E. Quin, D., McComb City.
- 8 James W. Collier, D., Vicksburg.

MISSOURI

- 1 Milton A. Romjue, D., Macon.
- 2 William W. Rucker, D., Keytesville.
- 3 Joshua W. Alexander, D., Gallitan.
- 4 Charles F. Booher, D., Savannah.
- 5 William P. Borland, D., Kansas City.
- 6 Clement C. Dickinson, D., Clinton.
- 7 Courtney W. Hamlin, D., Springfield.
- 8 D. W. Shackelford, D., Jefferson City.
- 9 Champ Clark, D., Bowling Green.
- 10 Jacob E. Meeker, R., St. Louis.
- 11 William L. Igce, D., St. Louis.
- 12 L. C. Dyer, R., St. Louis.
- 13 Walter L. Hensley, D., Farmington.
- 14 Joseph J. Russell, D., Charleston.
- 15 Perl D. Decker, D., Joplin.
- 16 Thomas L. Rubey, D., Lebanon.

MONTANA (At Large)

- John M. Evans, D., Missoula.
Miss Jeannette Rankin, R., Missoula.

NEBRASKA

- 1 C. F. Reavis, R., Falls City.
- 2 Charles O. Lobeck, D., Omaha.
- 3 Dan V. Stephens, D., Fremont.
- 4 Charles H. Sloan, R., Geneva.
- 5 Ashton C. Shallenberger, D., Alma.
- 6 Moses P. Pinkaid, R., O'Neill.

NEVADA (At Large)

- E. E. Roberts, R., Carson City.

NEW HAMPSHIRE

- 1 Cyrus A. Sulloway, R., Manchester.
- 2 Edward H. Wason, R., Nashua.

NEW JERSEY

- 1 William J. Browning, R., Camden.
- 2 Isaac Bacharach, R., Atlantic City.
- 3 Robert Carson, R., New Brunswick.
- 4 Elijah C. Hutchinson, R., Trenton.
- 5 John H. Capstick, R., Montville.
- 6 John R. Ramsey, R., Hackensack.
- 7 Dow H. Drukker, R., Passaic.
- 8 Edward W. Gray, R., Newark.
- 9 Richard Wayne Parker, R., Newark.
- 10 Frederick R. Lehlbach, R., Newark.
- 11 John J. Eagan, D., Weehawken.
- 12 James A. Hamill, D., Jersey City.

NEW MEXICO (At Large)

- B. C. Hernandez, R., Tierra Amarilla.

NEW YORK

- 1 F. C. Hicks, R., Port Washington.
- 2 Charles P. Caldwell, D., Forest Hills.
- 3 Joseph V. Flynn, D., Brooklyn.
- 4 Harry H. Dale, D., Brooklyn.
- 5 James P. Maher, D., Brooklyn.
- 6 Frederick W. Rowe, R., Brooklyn.
- 7 John J. Fitzgerald, D., Brooklyn.
- 8 Daniel J. Griffin, D., Brooklyn.
- 9 Oscar W. Swift, R., Brooklyn.
- 10 Reuben L. Haskell, R., Brooklyn.
- 11 D. J. Riordan, D., New York City.
- 12 Meyer London, Soc., New York City.
- 13 Chris. D. Sullivan, D., New York City.
- 14 F. H. LaGuardia, R., New York City.
- 15 Michael F. Conry, D., New York City.

DIST. NEW YORK—Cont'd

- 16 Peter J. Dooling, D., New York City.
- 17 John F. Carew, D., New York City.
- 18 George B. Francis, R., New York City.
- 19 W. M. Chandler, R., New York City.
- 20 Issac Siegel, R., New York City.
- 21 G. Murray Hulbert, D., New York City.
- 22 Henry Bruckner, D., New York City.
- 23 Daniel C. Oliver, D., New York City.
- 24 W. R. Oglesby, D., New York City.
- 25 James A. Husted, R., Peekskill.
- 26 Edmund Platt, R., Poughkeepsie.
- 27 Charles B. Ward, R., DeBruce.
- 28 Rollin B. Sanford, R., Slingerlands.
- 29 James S. Parker, R., Salem.
- 30 George R. Lunn, D., Schenectady.
- 31 Betrand H. Snell, R., Potsdam.
- 32 Luther W. Mott, R., Oswego.
- 33 Homer P. Snyder, R., Little Falls.
- 34 George W. Fairchild, R., Oneonta.
- 35 Walter W. Magee, R., Syracuse.
- 36 Norman J. Gould, R., Seneca Falls.
- 37 Harry H. Pratt, R., Corning.
- 38 Thomas B. Dunn, R., Rochester.
- 39 Archie D. Sanders, R., Stafford.
- 40 S. Wallace Dempsey, R., Lockport.
- 41 Charles B. Smith, D., Buffalo.
- 42 W. F. Waldow, R., Buffalo.
- 43 Charles M. Hamilton, R., Ripley.

NORTH CAROLINA

- 1 J. H. Small, D., Washington.
- 2 Claude Kitchin, D., Scotland Neck.
- 3 George E. Hood, D., Goldsboro.
- 4 Edward W. Pou, D., Smithfield.
- 5 Charles M. Stedman, D., Greensboro.
- 6 Hannibal L. Godwin, D., Dunn.
- 7 L. D. Robinson, D., Wadesboro.
- 8 R. L. Doughton, D., Laurel Springs.
- 9 Edwin Y. Webb, D., Shelby.
- 10 James J. Britt, R., Asheville.

NORTH DAKOTA

- 1 Henry T. Helgesen, R., Milton.
- 2 George M. Young, R., Valley City.
- 3 Patrick D. Norton, R., Hettinger.

OHIO

- 1 Nicholas Longworth, R., Cincinnati.
- 2 Victor Heintz, R., Cincinnati.
- 3 Warren Gard, D., Hamilton.
- 4 J. E. Russell, R., Sydney.
- 5 John S. Snook, D., Paulding.
- 6 Charles C. Kearns, R., Batavia.
- 7 Simeon D. Fess, R., Yellow Springs.
- 8 John A. Key, D., Marion.
- 9 Isaac R. Sherwood, D., Toledo.
- 10 Robert M. Switzer, R., Gallipolis.
- 11 H. C. Claypool, D., Chillicothe.
- 12 Clement Brumbaugh, D., Columbus.
- 13 A. W. Overmyer, D., Fremont.
- 14 E. R. Bathrick, D., Akron.
- 15 George White, D., Marietta.
- 16 Roscoe C. McCulloch, R., Canton.
- 17 William A. Ashbrook, D., Johnstown.
- 18 D. A. Hollingsworth, R., Cadiz.
- 19 J. G. Cooper, R., Youngstown.
- 20 William Gordon, D., Cleveland.
- 21 Robert Cresser, D., Cleveland.
- 22 Henry I. Emerson, R., Cleveland.

OKLAHOMA

- 1 T. A. Chandler, R., Vinita.
- 2 W. W. Hastings, D., Talequah.
- 3 Charles D. Carter, D., Ardmore.
- 4 T. D. McKeown, D., Ada.
- 5 Joe B. Thompson, D., Pauls Valley.
- 6 Scott Ferris, D., Lawton.
- 7 James V. McClintic, D., Snyder.

DIST. OKLAHOMA—Cont'd

- 8 Dick T. Morgan, R., Woodward.

OREGON

- 1 William C. Hawley, R., Salem.
- 2 Nicholas J. Sinnott, R., The Dalles.
- 3 C. N. McArthur, R., Portland.

PENNSYLVANIA (At Large)

- T. S. Crago, R., Waynesburg.
- M. M. Garland, D., Pittsburgh.
- Joseph McLaughlin, R., Philadelphia.
- J. R. K. Scott, R., Philadelphia.
- 1 William S. Vare, R., Philadelphia.
- 2 George S. Graham, R., Philadelphia.
- 3 J. Hampton Moore, R., Philadelphia.
- 4 George W. Edmonds, R., Philadelphia.
- 5 P. E. Costello, R., Philadelphia.
- 6 George P. Darrow, R., Philadelphia.
- 7 Thomas S. Butler, R., West Chester.
- 8 Henry W. Watson, R., Langhorne.
- 9 William W. Griest, R., Lancaster.
- 10 John R. Farr, R., Scranton.
- 11 G. W. Templeton, R., Plymouth.
- 12 R. D. Heaton, R., Ashland.
- 13 A. G. Dewalt, D., Allentown.
- 14 L. T. McFadden, R., Canton.
- 15 Edgar R. Kiess, R., Williamsport.
- 16 John V. Lesh, D., Sunbury.
- 17 Benjamin K. Focht, R., Lewisburg.
- 18 Aaron S. Kreider, R., Annville.
- 19 John M. Rose, R., Johnstown.
- 20 Andrew R. Brodeck, D., Hanover.
- 21 Charles H. Rowland, R., Philipsburg.
- 22 Edward E. Robbins, R., Greensburg.
- 23 Bruce F. Sterling, D., Uniontown.
- 24 Henry W. Temple, R., Washington.
- 25 Henry A. Clark, R., Erie.
- 26 H. J. Steele, D., Easton.
- 27 Nathan L. Strong, R., Brookville.
- 28 O. D. Bleakley, R., Franklin.
- 29 Stephen G. Porter, R., Pittsburgh.
- 30 W. H. Coleman, R., McKeesport.
- 31 John M. Morin, R., Pittsburgh.
- 32 Guy E. Campbell, D., Crafton.

RHODE ISLAND

- 1 George F. O'Shaunessy, D., Providence.
- 2 Walter R. Stiness, R., Warwick.
- 3 Ambrose Kennedy, R., Woonsocket.

SOUTH CAROLINA

- 1 Richard S. Whaley, D., Charleston.
- 2 James F. Brynes, D., Aiken.
- 3 F. H. Dominick, D., Newberry.
- 4 S. J. Nichols, D., Spartanburg.
- 5 David E. Finley, D., York.
- 6 J. Willard Ragsdale, D., Florence.
- 7 Asbury F. Lever, D., Lexington.

SOUTH DAKOTA

- 1 Charles H. Dillon, R., Yankton.
- 2 Royal C. Johnson, R., Aberdeen.
- 3 Harry L. Gandy, D., Rapid City.

TENNESSEE

- 1 Sam R. Sells, R., Johnson City.
- 2 Richard W. Austin, R., Knoxville.
- 3 John A. Moon, D., Chattanooga.
- 4 Cordell Hull, D., Carthage.
- 5 William C. Houston, D., Woodbury.
- 6 Joseph W. Byrns, D., Nashville.
- 7 Lemuel P. Padgett, D., Columbia.
- 8 Thetus W. Sims, D., Linden.
- 9 Finis J. Garrett, D., Dresden.
- 10 Hubert Fisher, D., Memphis.

TEXAS (At Large)

- Daniel E. Garrett, D., Houston

HOUSE OF REPRESENTATIVES—Cont'd

DIST. TEXAS—Cont'd

- 1 Jeff. McLemore, D., Houston.
- 1 Eugene Black, D., Clarksville.
- 2 Martin Dies, D., Warren.
- 3 James Young, D., Kaufman.
- 4 Sam Rayburn, D., Bonham.
- 5 Hutton W. Sumners, D., Dallas.
- 6 Rufus Hardy, D., Corsicana.
- 7 Alexander W. Gregg, D., Palestine.
- 8 Joe H. Eagle, D., Houston.
- 9 J. N. Mansfield, D., Wharton.
- 10 James P. Buchanan, D., Brenham.
- 11 Tom Connally, D., Marlin.
- 12 James C. Wilson, D., Ft. Worth.
- 13 Marvin Jones, D., Amarillo.
- 14 James L. Slayden, D., San Antonio.
- 15 John N. Garner, D., Uvalde.
- 16 Thomas M. Blanton, D., Abilene.

UTAH

- 1 Timothy C. Hoyt, R., Ogden.
- 2 James H. Mays, D., Salt Lake City.

VERMONT

- 1 Frank L. Greene, R., St. Albans.
- 2 Porter H. Dale, R., Island Pond.

DIST. VIRGINIA

- 1 William A. Jones, D., Warsaw.
- 2 Edward E. Holland, D., Suffolk.
- 3 Andrew J. Montague, D., Richmond.
- 4 W. A. Watson, D., Jennings Ordinary.
- 5 E. W. Saunders, D., Rockymount.
- 6 Carter Glass, D., Lynchburg.
- 7 Thomas W. Harrison, D., Winchester.
- 8 Charles C. Carlin, D., Alexandria.
- 9 Campbell B. Slemm, R., Big Stone Gap.
- 10 Henry D. Flood, D., Appomattox.

WASHINGTON

- 1 John F. Miller, R., Seattle.
- 2 Lindley H. Hadley, R., Bellingham.
- 3 Albert Johnson, R., Aquia.
- 4 William L. La Follette, R., Pullman.
- 5 C. C. Dill, D., Spokane.

WEST VIRGINIA

- 1 Matthew M. Neely, D., Fairmont.
- 2 George M. Bowers, R., Martinsburg.
- 3 Stuart F. Reed, R., Charleston.
- 4 Harry C. Woodyard, R., Spencer.
- 5 Edward Cooper, R., Bramwell.
- 6 Adam B. Littlepage, D., Charleston.

WOMAN SUFFRAGE

Complete woman suffrage has been granted in eleven States, New York—School suffrage (1880), tax-paying suffrage, local taxation in all towns and villages of the state (1901), women in all towns, villages and third class cities vote on bonding propositions (1910)

	Date Granted	Number of Women Eligible to Vote
Wyoming.....	1869	28,840
Colorado.....	1893	213,425
Utah.....	1896	85,729
Idaho.....	1896	69,818
Washington.....	1910	277,727
California.....	1911	671,386
Kansas.....	1912	438,934
Arizona.....	1912	43,891
Oregon.....	1912	169,000
Alaska.....	1913	11,000
Montana.....	1914	81,741
Nevada.....	1914	18,140

On October 17, 1915, New Jersey cast 133,282 votes for and 184,340 against Woman Suffrage.

On November 2, 1915, the following states cast votes against Woman Suffrage:

Massachusetts by 133,447 majority, New York by 188,313 majority and Pennsylvania by 56,686 majority.

On June 5, 1916, Iowa cast a referendum vote against woman suffrage, by a majority of 10,341.

On November 7, 1916, South Dakota and West Virginia, both defeated woman suffrage referendums by close majorities.

Partial Woman Suffrage

Partial woman suffrage exists in several States. The kind of suffrage and dates of establishment follow:

- Connecticut—School suffrage (1893)
- Delaware—School suffrage to tax-paying women (1898)
- Illinois—The Illinois legislature passed a law by which Illinois women gain the right to vote for all officials not provided for by the State constitution. This includes Presidential electors and all county and municipal officers (1913). There are 1,567,491 women eligible to vote.
- Iowa—Bond suffrage (1894), tax levies.
- Kentucky—School suffrage to widows with children of school age (1838). Measure enlarged (1912).
- Louisiana—Tax-paying suffrage (1898)
- Massachusetts—School suffrage (1879)
- Michigan—School suffrage (1875), taxpayers to vote on questions of local taxation and granting franchises (1908)
- Minnesota—School suffrage (1875), library trustees (1898)
- Mississippi—School suffrage (1880)
- Nebraska—School suffrage (1883)
- New Hampshire—School suffrage (1878)
- New Jersey—School suffrage (1887)
- New Mexico—School suffrage (1910)

DIST. WISCONSIN

- 1 Henry A. Cooper, R., Racine.
- 2 Edward Voight, R., Sheboygan.
- 3 John M. Nelson, R., Madison.
- 4 William J. Cary, R., Milwaukee.
- 5 William H. Stafford, R., Milwaukee.
- 6 J. H. Davidson, R., Oshkosh.
- 7 John J. Esch, R., La Crosse.
- 8 Edward E. Browne, R., Waupaca.
- 9 David G. Classon, R., Oconto.
- 10 James A. Frear, R., Hudson.
- 11 Irvine L. Lenroot, R., Superior.

WYOMING (At Large)

Frank W. Mondell, R., Newcastle.

DELEGATES

ALASKA

Charles A. Sulzer, D.
James Wickersham, R., Fairbanks.

HAWAII

J. Kubio Kalaniana'ole, R., Honolulu.

States Repudiating Woman Suffrage

States whose legislatures have recently repudiated a woman suffrage amendment are Delaware, Georgia, Kentucky, Louisiana, Maine, Maryland, Mississippi, Missouri, Nebraska, Ohio and Virginia. In Maine both houses gave the measure a majority indorsement but not the two-thirds vote required. In Missouri, after having been sent to engrossment by both houses, the bill was reconsidered and killed by the Senate.

To Enfranchise Women.

There are two ways through which women can be enfranchised—Congress can submit an amendment to the National Constitution, which must be ratified by three-fourths of the Legislatures; or the Legislature of each State can submit an amendment to its own constitution, which must be approved by the majority of the voters. The former would be the easier way, but the National American Woman Suffrage Association has realized that Congress would not act until a considerable number of States had first conferred the suffrage. Therefore, while it has appealed to every Congress since 1869, it has continually assisted the individual States in their struggle. The Legislature of a Territory can grant the suffrage without referendum, as can the Legislature of the State of Delaware.

Women Suffrage in Foreign Countries

Woman suffrage exists in New Zealand, the six States of the Australian Federation, Finland, Norway, Denmark and Iceland. All women in Sweden have municipal suffrage. Isle of Man gives full Parliamentary suffrage to women tax-payers. England, Wales, Scotland and Ireland give municipal suffrage to women. In Canada full suffrage exists in Alberta, British Columbia, Manitoba and Saskatchewan, while municipal suffrage is given to property owning widows and spinsters in Ontario, Prince Edward Island and Quebec; to tax paying widows and spinsters in New Brunswick. Nova Scotia grants municipal suffrage to all property owning women, including married women whose husbands are not voters. Municipal suffrage is granted the women of Rangoon, capital of Burma; Belize, capital of British Honduras; Baroda and Bombay, British India and the union of South Africa. Women have limited communal franchise rights in certain provinces of Austria, Hungary and Russia.

DECLARATION OF INDEPENDENCE

A movement to declare the independence of the Colonies in America was first taken up by delegates to the Congress in Philadelphia, May 10, 1776. On June 11, a committee of five was appointed to draw up a resolution. This committee consisted of Jefferson, J. Adams, Franklin, Sherman and Livingston. On July 1, Congress resolved itself into a committee of the whole to consider the resolution. Finally on July 4, 1776, the Declaration of Independence was agreed to and signed by John Hancock, president of the Congress and the delegates. This is the Declaration which established the United States in the eyes of the world as a free and independent country.

When in the Course of human events, it becomes necessary for one people to dissolve the political bands which have connected them with another, and to assume among the powers of the earth, the separate and equal station to which the Laws of Nature and of Nature's God entitles them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the separation.

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness. That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed, That, whenever any Form of Government becomes destructive of these ends, it is the Right of the People to alter or to abolish it, and to institute a new Government, laying its foundation on such principles and organizing its powers in such form, as to them shall seem most likely to effect their Safety and Happiness. Prudence, indeed, will dictate that Governments long established should not be changed for light and transient causes; and accordingly all experience hath shewn that mankind are more disposed to suffer, while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed. But when a long train of abuses and usurpations, pursuing invariably the same Object evinces a design to reduce them under absolute Despotism, it is their right, it is their duty, to throw off such Government, and to provide new Guards for their future security. Such has been the patient sufferance of these Colonies; and such is now the necessity which constrains them to alter their former Systems of Government. The history of the present King of Great Britain is a history of repeated injuries and usurpations, all having in direct object the establishment of an absolute Tyranny over these States. To prove this, let Facts be submitted to a candid world.

He has refused his Assent to Laws, the most wholesome and necessary for the public good.

He has forbidden his Governors to pass Laws of immediate and pressing importance, unless suspended in their operation till his Assent should be obtained; and when so suspended, he has utterly neglected to attend to them.

He has refused to pass other Laws for the accommodation of large districts of people, unless those people would relinquish the right of Representation in the Legislature, a right inestimable to them and formidable to tyrants only.

He has called together legislative bodies at places unusual, uncomfortable, and distant from the depository of their public Records, for the sole purpose of fatiguing them into compliance with his measures.

He has dissolved Representative Houses repeatedly, for opposing with manly firmness his invasions on the rights of the people.

He has refused for a long time, after such dissolutions, to cause others to be elected; whereby the Legislative powers, incapable of Annihilation, have returned to the People at large for their exercise; the State remaining in the meantime exposed to all the dangers of invasion from without, and convulsions within.

He has endeavored to prevent the population of these States; for that purpose obstructing the Laws for Naturalization of Foreigners; refusing to pass others to encourage their migrations hither, and raising the conditions of new Appropriations of Lands.

He has obstructed the Administration of Justice, by refusing his Assent to Laws for establishing Judiciary Powers.

He has made Judges dependent on his Will alone, for the tenure of their offices, and the amount and payment of their salaries.

He has erected a multitude of New Offices, and sent hither

swarms of Officers to harass our people, and eat out their substance.

He has kept among us, in times of peace, Standing Armies without the Consent of our legislature.

He has affected to render the Military independent of and superior to the Civil power.

He has combined with others to subject us to a jurisdiction foreign to our constitution, and unacknowledged by our laws; giving his Assent to their Acts of pretended Legislation:

For quartering large bodies of armed troops among us:

For protecting them, by a mock Trial, from punishment for any Murders which they should commit on the Inhabitants of these States:

For cutting off our Trade with all parts of the world:

For imposing Taxes on us without our Consent:

For depriving us in many cases, of the benefits of Trial by jury:

For transporting us beyond Seas to be tried for pretended offences:

For abolishing the free System of English Laws in a neighboring Province, establishing therein an Arbitrary government, and enlarging its Boundaries so as to render it at once an example and fit instrument for introducing the same absolute rule into these Colonies:

For taking away our Charters, abolishing our most valuable Laws, and altering fundamentally the Forms of our Governments:

For suspending our own Legislatures, and declaring themselves invested with power to legislate for us in all cases whatsoever.

He has abdicated Government here, by declaring us out of his Protection and waging War against us.

He has plundered our seas, ravaged our Coasts, burnt our towns, and destroyed the lives of our people.

He is at this time transporting large Armies of foreign Mercenaries to complete the works of death, desolation and tyranny, already begun with circumstances of Cruelty and perfidy scarcely paralleled in the most barbarous ages, and totally unworthy the Head of a civilized nation.

He has constrained our fellow-Citizens taken captive on the high Seas to bear Arms against their Country, to become the executioners of their friends and Brethren, or to fall themselves by their Hands.

He has excited domestic insurrections amongst us, and has endeavored to bring on the Inhabitants of our frontiers, the merciless Indian Savages, whose known rule of warfare, is an undistinguished destruction of all ages, sexes and conditions.

In every stage of these Oppressions We have Petitioned for Redress in the most humble terms:

Our repeated Petitions have been answered only by repeated injury. A Prince, whose character is thus marked by every act which may define a Tyrant, is unfit to be the ruler of a free people.

Nor have We been wanting in attentions to our British brethren. We have warned them from time to time of attempts by their legislature to extend an unwarrantable jurisdiction over us. We have reminded them of the circumstances of our emigration and settlement here. We have appealed to their native justice and magnanimity, and we have conjured them by the ties of our common kindred to disavow these usurpations, which, would inevitably interrupt our connections and correspondence. They too have been deaf to the voice of justice and of consanguinity. We must, therefore, acquiesce in the necessity, which denounces our Separation, and hold them, as we hold the rest of mankind, Enemies in War, in Peace Friends.

WE, THEREFORE, the REPRESENTATIVES of the UNITED STATES of AMERICA, in GENERAL CONGRESS, Assembled, appealing to the Supreme Judge of the world for the rectitude of our intentions, do, in the Name, and by authority of the good People of these Colonies, solemnly PUBLISH and DECLARE, That these United Colonies are, and of Right ought to be FREE and INDEPENDENT States; that they are Absolved from all Allegiance to the British Crown, and that all political connection between them and the State of Great Britain, is and ought to be totally dissolved; and that as FREE and INDEPENDENT STATES they have full Power to levy War, conclude Peace, contract Alliances, establish Commerce, and to do all other Acts and Things which INDEPENDENT STATES may of right do. And for the support of this Declaration, with a firm reliance on the protection of

DECLARATION OF INDEPENDENCE—Continued

Divine Providence, We mutually pledge to each other our Lives, our Fortunes, and our sacred Honor.

The foregoing declaration was, by order of congress, engrossed and signed by the following members: JOHN HANCOCK.

New Hampshire:
Josiah Bartlett,
William Whipple,
Matthew Thornton.
Massachusetts Bay:
Samuel Adams,
John Adams,
Robert Treat Paine,
Elbridge Gerry.
Rhode Island, Etc.:
Stephen Hopkins,
William Ellery.
Connecticut:
Roger Sherman,
Samuel Huntington,

William Williams,
Oliver Wolcott.
New York:
William Floyd,
Philip Livingston,
Francis Lewis,
Lewis Morris.
New Jersey:
Richard Stockton,
John Witherspoon,
Francis Hopkinson,
John Hart,
Abraham Clark.
Delaware:
Cesar Rodney,

George Read,
Thomas McKean.
Pennsylvania:
Robert Morris,
Benjamin Rush,
Benjamin Franklin,
John Morton,
George Clymer,
James Smith,
George Taylor,
James Wilson,
George Ross.
Maryland:
Samuel Chase,
William Paca,
Thomas Stone,
Charles Carroll of Carrollton.
Virginia:
George Wythe,

Richard Henry Lee,
Thomas Jefferson,
Benjamin Harrison,
Thomas Nelson, Jr.,
Francis Lightfoot Lee,
Carter Braxton.
North Carolina:
William Hooper,
Joseph Hewes,
John Penn.
South Carolina:
Edward Rutledge,
Thomas Heyward, Jr.,
Thomas Lynch, Jr.,
Arthur Middleton.
Georgia:
Button Gwinnett,
Lyman Hall,
George Walton.

ARTICLES OF CONFEDERATION

Ratified at Philadelphia, Pa., 9 July, 1778.

Articles of Confederation and Perpetual Union between the States of *New Hampshire, Massachusetts Bay, Rhode Island and Providence Plantations, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina, and Georgia.*

ARTICLE I

The stile of this Confederacy shall be "The United States of America."

ARTICLE II

Each State retains its sovereignty, freedom, and independence, and every power, jurisdiction, and right which is not by this confederation expressly delegated to the United States in Congress assembled.

ARTICLE III

The said States hereby severally enter into a firm league of friendship with each other, for their common defense, the security of their liberties, and their mutual and general welfare, binding themselves to assist each other against all force offered to, or attacks made upon them, or any of them, on account of religion, sovereignty, trade, or any other pretence whatever.

ARTICLE IV

The better to secure and perpetuate mutual friendship and intercourse among the people of the different States in this Union, the free inhabitants of each of these States (paupers, vagabonds, and fugitives from justice excepted) shall be entitled to all privileges and immunities of free citizens in the several States; and the people of each State shall have free ingress and regress to and from any other State, and shall enjoy therein all the privileges of trade and commerce, subject to the same duties, impositions, and restrictions as the inhabitants thereof respectively; provided that such restrictions shall not extend so far as to prevent the removal of property imported into any State, to any other State of which the owner is an inhabitant; provided also that no imposition, duties, or restriction shall be laid by any State on the property of the United States, or either of them.

If any person guilty of, or charged with, treason, felony, or other high misdemeanor in any State, shall flee from justice, and be found in any of the United States, he shall, upon demand of the governor or executive power of the State from which he fled, be delivered up and removed to the State having jurisdiction of his offense.

Full faith and credit shall be given in each of these States to the records, acts, and judicial proceedings of the courts and magistrates of every other State.

ARTICLE V

For the more convenient management of the general interests of the United States, delegates shall be annually appointed, in such manner as the legislature of each State shall direct, to meet in Congress on the first Monday in November in every year, with a power reserved to each State to recall its delegates,

or any of them, at any time within the year, and to send others in their stead for the remainder of the year. No State shall be represented in Congress by less than two nor by more than seven members; and no person shall be capable of being a delegate for more than three years in any term of six years; nor shall any person, being a delegate, be capable of holding any office under the United States for which he, or another for his benefit, receives any salary, fees, or emolument of any kind. Each State shall maintain its own delegates in a meeting of the States, and while they act as members of the committee of the States.

In determining questions in the United States, in Congress assembled, each State shall have one vote.

Freedom of speech and debate in Congress shall not be impeached or questioned in any court or place out of Congress; and the members of Congress shall be protected in their persons from arrests and imprisonments during the time of their going to and from and attendance on Congress, except for treason, felony, or breach of the peace.

ARTICLE VI

No State, without the consent of the United States in Congress assembled, shall send any embassy to, or receive any embassy from, or enter into any conference, agreement, alliance, or treaty, with any king, prince, or state; nor shall any person holding any office of profit or trust under the United States, or any of them, accept of any present, emolument, office, or title of any kind whatever from any king, prince, or foreign state; nor shall the United States, in Congress assembled, or any of them, grant any title of nobility.

No two or more States shall enter into any treaty, confederation, or alliance whatever between them, without the consent of the United States, in Congress assembled, specifying accurately the purposes for which the same is to be entered into, and how long it shall continue.

No States shall lay any imposts or duties which may interfere with any stipulations in treaties entered into by the United States, in Congress assembled, with any king, prince, or state, in pursuance of any treaties already proposed by Congress to the courts of France and Spain. No vessels of war shall be kept up in time of peace by any State, except such number only as shall be deemed necessary by the United States, in Congress assembled, for the defense of such State or its trade; nor shall any body of forces be kept up by any State, in time of peace, except such number only as, in the judgment of the United States, in Congress assembled, shall be deemed requisite to garrison the forts necessary for the defense of such State; but every State shall always keep up a well-regulated and disciplined militia, sufficiently armed and accoutred, and shall provide and constantly have ready for use, in public stores, a due number of field-pieces and tents, and a proper quantity of arms, ammunition and camp equipage.

No State shall engage in any war without the consent of the United States, in Congress assembled, unless such State be actually invaded by enemies, or shall have received certain advice of a resolution being formed by some nation of Indians to invade such State, and the danger is so imminent as not to admit of a delay till the United States, in Congress assembled, can be consulted; nor shall any State grant commissions to any ships or vessels of war, nor letters of marque or reprisal, except it be after a declaration of war by the United States, in Congress assembled, and then only against the kingdom or state and the subjects thereof against which war has been so declared, and under such regulations as shall be established by the United States, in Congress assembled, unless such State be infested by pirates, in which case vessels of war may be fitted out for that occasion, and kept so long as the danger shall continue, or until the United States, in Congress assembled, shall determine otherwise.

ARTICLE VII

When land forces are raised by any State for the common defense, all officers of or under the rank of colonel shall be appointed by the legislature of each State respectively by whom such forces shall be raised, or in such manner as such State shall direct, and all vacancies shall be filled up by the State which first made the appointment.

ARTICLE VIII

All charges of war, and all other expenses that shall be incurred, for the common defense or general welfare, and allowed by the United States, in Congress assembled, shall be defrayed out of a common treasury, which shall be supplied by the several States, in proportion to the value of all land within each State, granted to, or surveyed for, any person, as such land and the buildings and improvements thereon shall be estimated according to such mode as the United States, in Congress assembled, shall from time to time direct and appoint. The taxes for paying that proportion shall be laid and levied by the authority and direction of the legislatures of the several States, within the time agreed upon by the United States, in Congress assembled.

ARTICLE IX

The United States, in Congress assembled, shall have the sole and exclusive right and power of determining on peace and war, except in the cases mentioned in the sixth Article; of sending and receiving ambassadors; entering into treaties and alliances, provided that no treaty of commerce shall be made whereby the legislative power of the respective States shall be restrained from imposing such imposts and duties on foreigners, as their own people are subjected to, or from prohibiting the exportation, or importation of any species of goods or commodities whatsoever; of establishing rules for deciding, in all cases, what captures on land or water shall be legal, and in what manner prizes taken by land or naval forces in the service of the United States shall be divided or appropriated; of granting letters of marque and reprisal in times of peace; appointing courts for the trial of piracies and felonies committed on the high seas; and establishing courts for receiving and determining finally appeals in all cases of captures; provided that no member of Congress shall be appointed a judge of any of the said courts.

The United States, in Congress assembled, shall also be the last resort on appeal in all disputes and differences now subsisting, or that hereafter may arise, between two or more States concerning boundary jurisdiction, or any other cause whatever, which authority shall always be exercised in the manner following:—

Whenever the legislative or executive authority, or lawful agent of any State in controversy with another, shall present a petition to Congress, stating the matter in question, and praying for a hearing, notice thereof shall be given by order of Congress to the legislative or executive authority of the other State in controversy, and a day assigned for the appearance of the parties by their lawful agents, who shall then be directed to appoint, by joint consent, commissioners or judges to constitute a court for hearing and determining the matter in question; but if they cannot agree, Congress shall name three persons out of each of the United States, and from the list of such persons each party shall alternately strike out one, the petitioners beginning, until the number shall be reduced to thirteen; and from that number not less than seven, nor more than nine names, as Congress shall direct, shall, in the presence of Congress, be drawn out by lot; and the persons whose names shall be so drawn, or any five of them, shall be commissioners or judges, to hear and finally determine the controversy, so always

as a major part of the judges who shall hear the cause shall agree in the determination; and if either party shall neglect to attend at the day appointed, without showing reasons which Congress shall judge sufficient, or being present, shall refuse to strike, the Congress shall proceed to nominate three persons out of each State, and the secretary of Congress shall strike in behalf of such party absent or refusing; and the judgment and sentence of the court, to be appointed in the manner before prescribed, shall be final and conclusive; and if any of the parties shall refuse to submit to the authority of such court, or to appear or defend their claim or cause, the court shall nevertheless proceed to pronounce sentence or judgment, which shall in like manner be final and decisive; the judgment or sentence and other proceedings being in either case transmitted to Congress, and lodged among the acts of Congress for the security of the parties concerned; provided, that every commissioner, before he sits in judgment, shall take an oath, to be administered by one of the judges of the Supreme or Superior court of the State where the cause shall be tried, "well and truly to hear and determine the matter in question, according to the best of his judgment, without favor, affection, or hope of reward." Provided, also, that no State shall be deprived of territory for the benefit of the United States.

All controversies concerning the private right of soil claimed under different grants of two or more States, whose jurisdiction, as they may respect such lands, and the States which passed such grants, are adjusted, the said grants or either of them being at the same time claimed to have originated antecedent to such settlement of jurisdiction, shall, on the petition of either party to the Congress of the United States, be finally determined, as near as may be, in the same manner as is before prescribed for deciding disputes respecting territorial jurisdiction between different States.

The United States, in Congress assembled, shall also have the sole and exclusive right and power of regulating the alloy and value of coin struck by their own authority, or by that of the respective States; fixing the standard of weights and measures throughout the United States; regulating the trade and managing all affairs with the Indians not members of any of the States; provided that the legislative right of any State, within its own limits, be not infringed or violated; establishing and regulating postoffices from one State to another throughout all the United States, and exacting such postage on the papers passing thro' the same as may be requisite to defray the expenses of the said office; appointing all officers of the land forces in the service of the United States, excepting regimental officers; appointing all the officers of the naval forces, and commissioning all officers whatever in the service of the United States; making rules for the government and regulation of the said land and naval forces, and directing their operations.

The United States, in Congress assembled, shall have authority to appoint a committee, to sit in the recess of Congress, to be denominated "A Committee of the States, and to consist of one delegate from each State; and to appoint such other committees and civil officers as may be necessary for managing the general affairs of the United States under their direction; to appoint one of their number to preside, provided that no person be allowed to serve in the office of president more than one year in any term of three years; to ascertain the necessary sums of money to be raised for the service of the United States, and to appropriate and apply the same for defraying the public expenses; to borrow money or emit bills on the credit of the United States, transmitting every half year to the respective States an account of the sums of money so borrowed or emitted; to build and equip a navy; to agree upon the number of land forces, and to make requisitions from each State for its quota, in proportion to the number of white inhabitants in such State, which requisition shall be binding; and thereupon the legislature of each State shall appoint the regimental officers, raise the men, and cloth, arm, and equip them in a soldier-like manner at the expense of the United States; and the officers and men so clothed, armed, and equipped shall march to the place appointed, and within the time agreed on by the United States, in Congress assembled; but if the United States, in Congress assembled, shall, on consideration of circumstances, judge proper that any State should not raise men, or should raise a smaller number of men than the quota thereof, and that any other State should raise a greater number of men than the quota thereof, such extra number shall be raised, officered, clothed, armed, and equipped in the same manner as the quota of such

State, unless the legislature of such State shall judge that such extra number cannot be safely spared out of the same, in which case they shall raise, officer, cloath, arm, and equip as many of such extra number as they judge can be safely spared, and the officers and men so clothed, armed and equipped shall march to the place appointed, and within the time agreed on by the United States, in Congress assembled.

The United States, in Congress assembled, shall never engage in a war, nor grant letters of marque and reprisal in time of peace, nor enter into any treaties or alliances, nor coin money, nor regulate the value thereof, nor ascertain the sums and expenses necessary for the defence and welfare of the United States, or any of them, nor emit bills, nor borrow money on the credit of the United States, nor appropriate money nor agree upon the number of vessels of war to be built or purchased, or the number of land or sea forces to be raised, nor appoint a commander-in-chief of the army or navy, unless nine States assent to the same, nor shall a question on any other point, except for adjourning from day to day, be determined, unless by the votes of a majority of the United States, in Congress assembled.

The Congress of the United States shall have power to adjourn to any time within the year, and to any place within the United States, so that no period of adjournment be for a longer duration than the space of six months, and shall publish the journal of their proceedings monthly, except such parts thereof relating to treaties, alliances, or military operations as in their judgment require secrecy; and the yeas and nays of the delegates of each State on any question, shall be entered on the journal, when it is desired by any delegate; and the delegates of a State, or any of them, at his or their request, shall be furnished with a transcript of the said journal, except such parts as are above excepted, to lay before the legislatures of the several States.

WASHINGTON'S FAREWELL ADDRESS

To the people of the United States:

Here, perhaps, I ought to stop. But a solicitude for your welfare, which cannot end but with my life, and the apprehension of danger, natural to that solicitude, urge me, on an occasion like the present, to offer to your solemn contemplation, and to recommend to your frequent review, some sentiments which are the result of much reflection, of no inconsiderable observation, and which appear to me all important to the permanency of your felicity as a people. These will be offered to you with the more freedom, as you can only see in them the disinterested warnings of a parting friend, who can possibly have no personal motive to bias his counsel. Nor can I forget, as an encouragement to it, your indulgent reception of my sentiments on a former and not dissimilar occasion.

Interwoven as is the love of liberty with every ligament of your hearts, no recommendation of mine is necessary to fortify or confirm the attachment.

The unity of government which constitutes you one people, is also now dear to you. It is justly so; for it is a main pillar in the edifice of your real independence; the support of your tranquility at home; your peace abroad; of your safety; of your prosperity; of that very liberty which you so highly prize. But, as it is easy to foresee that, from different causes and from different quarters much pains will be taken, many artifices employed, to weaken in your minds the conviction of this truth; as this is the point in your political fortress against which the batteries of internal and external enemies will be most constantly and actively (though often covertly and insidiously) directed; it is of infinite moment, that you should properly estimate the immense value of your national union to your collective and individual happiness; that you should cherish a cordial, habitual, and immovable attachment to it; accustoming yourselves to think and speak of it as of the palladium of your political safety and prosperity; watching for its preservation with jealous anxiety; discountenancing whatever may suggest even a suspicion that it can, in any event, be abandoned; and indignantly frowning upon the first dawning of every attempt to alienate any portion of our country from the rest, or to enfeeble the sacred ties which now link together the various parts.

For this you have every inducement of sympathy and interest. Citizens by birth, or choice, of a common country, that country has a right to concentrate your affections. The name of American, which belongs to you in your national capacity, must always exalt the just pride of patriotism, more than any appellation derived from local discriminations. With slight shades of

ARTICLE X

The committee of the States, or any nine of them, shall be authorized to execute, in the recess of Congress, such of the powers of Congress as the United States, in Congress assembled, by the consent of nine States, shall, from time to time, think expedient to vest them with; provided that no power be delegated to the said committee, for the exercise of which, by the Articles of Confederation, the voice of nine States, in the Congress of the United States assembled, is requisite.

ARTICLE XI

Canada acceding to this Confederation, and joining in the measures of the United States, shall be admitted into, and entitled to all the advantages of this Union; but no other colony shall be admitted into the same unless such admission be agreed to by nine States.

ARTICLE XII

All bills of credit emitted, monies borrowed, and debts contracted by or under the authority of Congress, before the assembling of the United States, in pursuance of the present Confederation, shall be deemed and considered as a charge against the United States, for payment and satisfaction whereof the said United States and the public faith are hereby solemnly pledged.

ARTICLE XIII

Every State shall abide by the determinations of the United States, in Congress assembled, on all questions which by this Confederation are submitted to them. And the Articles of this Confederation shall be inviolably observed by every State, and the Union shall be perpetual; nor shall any alteration at any time hereafter be made in any of them, unless such alteration be agreed to in a Congress of the United States, and be afterwards confirmed by the legislatures of every State.

difference, you have the same religion, manners, habits, and political principles. You have, in a common cause, fought and triumphed together; the independence and liberty you possess, are the work of joint counsels, and joint efforts, of common dangers, sufferings and successes.

It is important likewise, that the habits of thinking in a free country should inspire caution in those intrusted with its administration, to confine themselves within their respective constitutional spheres, avoiding the exercise of the powers of one department, to encroach upon another. The spirit of encroachment tends to consolidate the powers of all the departments in one, and thus to create, whatever the form of government, a real despotism. A just estimate of that love of power and proneness to abuse it which predominate in the human heart, is sufficient to satisfy us of the truth of this position. The necessity of reciprocal checks in the exercise of political power, by dividing and distributing it into different depositories, and constituting each the guardian of the public weal against invasions of the others, has been evinced by experiments ancient and modern; some of them in own country and under our own eyes.—To preserve them must be as necessary as to institute them. If, in the opinion of the people, the distribution or modification of the constitutional powers be in any particular wrong, let it be corrected by an amendment in the way which the constitution designates.—But let there be no change by usurpation; for though this, in one instance, may be the instrument of good, it is the customary weapon by which free governments are destroyed. The precedent must always greatly overbalance in permanent evil, any partial or transient benefit which the use can at any time yield.

Observe good faith and justice towards all nations; cultivate peace and harmony with all. Religion and morality enjoin this conduct, and can it be that good policy does not equally enjoin it? It will be worthy of a free, enlightened, and, at no distant period, a great nation, to give to mankind the magnanimous and too novel example of a people always guided by an exalted justice and benevolence. Who can doubt but, in the course of time and things, the fruits of such a plan would richly repay any temporary advantages which might be lost by a steady adherence to it; can it be that Providence has not connected the permanent felicity of a nation with its virtue? The experiment, at least, is recommended by every sentiment which ennobles human nature. Alas! is it rendered impossible by its vice?

Against the insidious wiles of foreign influence, (I conjure you to believe me fellow citizens), the jealousy of a free people ought to be constantly awake; since history and experience prove, that foreign influence is one of the most baneful foes of republican government. But that jealousy, to be useful, must be impartial,

else it becomes the instrument of the very influence to be avoided, instead of a defense against it. Excessive partiality for one foreign nation and excessive dislike for another, cause those whom they actuate to see danger only on one side, and serve to veil and even second the arts of influence on the other. Real patriots, who may resist the intrigues of the favorite, are liable to become suspected and odious; while its tools and dupes usurp the applause and confidence of the people, to surrender their interests.

The great rule of conduct for us, in regard to foreign nations, is, in extending our commercial relations, to have with them as little political connection as possible. So far as we have already formed engagements, let them be fulfilled with perfect good faith.—Here let us stop.

Europe has a set of primary interests, which to us have none, or a very remote relation. Hence, she must be engaged in frequent controversies, the causes of which are essentially foreign to our concerns. Hence, she must be unwise in us to implicate ourselves, by artificial ties, in the ordinary vicissitudes of her politics, or the ordinary combinations and collisions of her friendships or enmities.

Our detached and distant situation invites and enables us to pursue a different course. If we remain one people, under an efficient government, the period is not far off when we may defy material injury from external annoyance; when we may

take such an attitude as will cause the neutrality we may at any time resolve upon, to be scrupulously respected; when belligerent nations, under the impossibility of making acquisitions upon us, will not lightly hazard the giving us provocation, when we may choose peace or war, as our interest, guided by justice, shall counsel.

Taking care always to keep ourselves by suitable establishments, on a respectable defensive posture, we may safely trust to temporary alliances for extraordinary emergencies.

The duty of holding a neutral conduct may be inferred, without anything more, from the obligation which justice and humanity impose on every nation, in cases in which it is free to act, to maintain inviolate the relations of peace and amity towards other nations.

The inducements of interest for observing that conduct will best be referred to your own reflections and experience. With me, a predominant motive has been to endeavor to gain time to our country to settle and mature its yet recent institutions, and to progress, without interruption, to that degree of strength, and consistency which is necessary to give it, humanly speaking, the command of its own fortunes.

GEO. WASHINGTON

UNITED STATES,
17th September, 1796.

CONSTITUTION OF THE UNITED STATES OF AMERICA

The Constitution of the United States is really an outgrowth of the Articles of Confederation under which the Colonies were first governed. In May, 1785, Congress recommended an alteration of the Articles of Confederation and it was left to the several state legislatures to proceed in the matter. Such action was slow and finally Congress, on Feb. 21, 1787, adopted a resolution suggesting a convention of delegates to be appointed by the state legislatures. On May 25, these delegates were organized in Philadelphia and George Washington was made President. On Sept. 17, the final draft of the Constitution was agreed upon and transmitted to Congress. On March 4, the Constitution was put into force and the machinery of our present government started after having been ratified by eleven of the thirteen states.

RATIFICATION

1. Delaware, December 7, 1787, unanimously.
2. Pennsylvania, December 12, 1787, vote 46 to 23.
3. New Jersey, December 18, 1787, unanimously.
4. Georgia, January 2, 1788, unanimously.
5. Connecticut, January 9, 1788, vote 128 to 40.
6. Massachusetts, February 6, 1788, vote 187 to 168.
7. Maryland, April 28, 1788, vote 63 to 12.
8. South Carolina, May 23, 1788, vote 149 to 73.
9. New Hampshire, June 21, 1788, vote 57 to 46.
10. Virginia, June 25, 1788, vote 89 to 79.
11. New York, July 26, 1788, vote 30 to 28.
(Later ratification.)
12. North Carolina, November 21, 1789, vote 193 to 75.
13. Rhode Island, May 29, 1790, vote 34 to 32.

PREAMBLE. We, the people of the United States, in order to form a more perfect union, establish justice, insure domestic tranquility, provide for the common defense, promote the general welfare and secure the blessings of liberty to ourselves and our posterity, do ordain and establish this constitution for the United States of America:

ARTICLE I

[THE LEGISLATIVE DEPARTMENT.]

Section I. All legislative powers herein granted shall be vested in a congress of the United States, which shall consist of a senate and house of representatives.

Section II. 1. The house of representatives shall be composed of members chosen every second year by the people of the several states, and the electors in each state shall have the qualifications requisite for electors of the most numerous branch of the state legislature.

2. No person shall be a representative who shall not have attained to the age of 25 years and been seven years a citizen of the United States, and who shall not, when elected, be an inhabitant of that state in which he shall be chosen.

3. Representatives and direct taxes shall be apportioned among the several states which may be included within this union, according to their respective numbers, which shall be determined by adding to the whole number of free persons, including those bound to service for a term of years, and excluding Indians not taxed, three-fifths of all other persons [see Amendment XIV]. The actual enumeration shall be made

within three years after the first meeting of the congress of the United States, and within every subsequent term of ten years, in such manner as they shall by law direct. The number of representatives shall not exceed one for every 30,000, but each state shall have at least one representative, and until such enumeration shall be made, the state of New Hampshire shall be entitled to choose three; Massachusetts, eight; Rhode Island and Providence Plantations, one; Connecticut, five; New York, six; New Jersey, four; Pennsylvania, eight; Delaware, one; Maryland, six; Virginia, ten; North Carolina, five; South Carolina, five, and Georgia, three.

4. When vacancies happen in the representation from any state the executive authority thereof shall issue writs of election to fill such vacancies.

5. The house of representatives shall choose their speaker and other officers and shall have the sole power of impeachment.

Section III. 1. The senate of the United States shall be composed of two senators from each state, chosen by the legislature thereof, for six years, and each senator shall have one vote.

Clause 1 is superseded by Amendment No. XVII.

2. Immediately after they shall be assembled in consequence of the first election they shall be divided, as equally as may be, into three classes. The seats of the senators of the first class shall be vacated at the expiration of the second year; of the second class, at the expiration of the fourth year, and of the third class at the expiration of the sixth year, so that one-third may be chosen every second year, and if vacancies happen by resignation or otherwise, during the recess of the legislature of any state, the executive thereof may make temporary appointments until the next meeting of the legislature, which shall then fill such vacancies.

3. No person shall be a senator who shall not have attained the age of 30 years and been nine years a citizen of the United States, and who shall not, when elected, be an inhabitant of that state for which he shall be chosen.

4. The vice-president of the United States shall be president of the senate, but shall have no vote unless they be equally divided.

5. The senate shall choose their other officers and also a president pro tempore in the absence of the vice-president or when he shall exercise the office of president of the United States.

6. The senate shall have the sole power to try all impeachments. When sitting for that purpose they shall be on oath or affirmation. When the president of the United States is tried, the chief justice shall preside; and no person shall be convicted without the concurrence of two-thirds of the members present.

7. Judgment in cases of impeachment, shall not extend, further than to removal from office and disqualification to hold and enjoy any office of honor, trust or profit under the United States; but the party convicted shall, nevertheless, be liable and subject to indictment, trial, judgment and punishment according to law.

Section IV. 1. The times, places and manner of holding elections for senators and representatives shall be prescribed in each state by the legislature thereof; but the congress may at any time, by law, make or alter such regulations, except as to the places of choosing senators.

2. The congress shall assemble at least once in every year, and such meeting shall be on the first Monday in December, unless they shall, by law, appoint a different day.

Section V. 1. Each house shall be the judge of the elections, returns and qualifications of its own members, and a majority of each shall constitute a quorum to do business, but a smaller number may adjourn from day to day, and may be authorized to compel the attendance of absent members, in such manner and under such penalties as each house may provide.

2. Each house may determine the rules of its proceedings, punish its members for disorderly behavior, and, with the concurrence of two-thirds, expel a member.

3. Each house shall keep a journal of its proceedings, and from time to time publish the same, excepting such parts as may, in their judgment, require secrecy; and the yeas and nays of the members of either house, on any question, shall, at the desire of one-fifth of those present, be entered on the journal.

4. Neither house, during the session of congress, shall without the consent of the other, adjourn for more than three days, nor to any other place than that in which the two houses shall be sitting.

Section VI. 1. The senators and representatives shall receive a compensation* for their services, to be ascertained by law, and paid out of the treasury of the United States. They shall, in all cases, except treason, felony and breach of the peace, be privileged from arrest during their attendance at the session of their respective houses; and in going to or returning from the same, and for any speech or debate in either house they shall not be questioned in any other place.

2. No senator or representative shall, during the time for which he was elected, be appointed to any civil office under the authority of the United States which shall have been created, or the emoluments whereof shall have been increased, during such time, and no person holding any office under the United States shall be a member of either house during his continuance in office.

Section VII. 1. All bills for raising revenue shall originate in the house of representatives, but the senate may propose or concur with amendments, as on other bills.

2. Every bill which shall have passed the house of representatives, and the senate shall, before it becomes a law, be presented to the president of the United States: if he approve, he shall sign it, but if not, he shall return it, with his objections, to that house in which it shall have originated, who shall enter the objections at large on their journal, and proceed to reconsider it. If, after such reconsideration, two-thirds of that house shall agree to pass the bill, it shall be sent, together with the objections, to the other house, by which it shall likewise be reconsidered, and if approved by two-thirds of that house it shall become a law. But in all such cases the votes of both houses shall be determined by yeas and nays, and the names of the persons voting for and against the bill shall be entered on the journal of each house respectively. If any bill shall not be returned by the president within ten days (Sundays excepted) after it shall have been presented to him, the same shall be a law, in like manner as if he had signed it, unless the congress by their adjournment prevent its return; in which case it shall not be a law.

3. Every order, resolution, or vote to which the concurrence of the senate and house of representatives may be necessary (except on a question of adjournment) shall be presented to the president of the United States; and before the same shall take effect shall be approved by him, or, being disapproved by him, shall be repassed by two-thirds of the senate and the house of representatives, according to the rules and limitations prescribed in the case of a bill.

Section VIII. The congress shall have power—

1. To lay and collect taxes, duties, imposts and excises, to pay the debts and provide for the common defense and general welfare of the United States; but all duties, imposts and excises shall be uniform throughout the United States.

2. To borrow money on the credit of the United States.

3. To regulate commerce with foreign nations and among the several states and with the Indian tribes.

4. To establish a uniform rule of naturalization and uniform laws on the subject of bankruptcies throughout the United States.

*Salary of Congressmen and Senators is \$7,500 per year and mileage.

†Naturalization laws require a foreigner to be in the United States five years before he is entitled to vote.

5. To coin money, regulate the value thereof and of foreign coin, and fix the standard of weights and measures.

6. To provide for the punishment of counterfeiting the securities and current coin of the United States.

7. To establish post-offices and post-roads.

8. To promote the progress of science and useful arts by securing, for limited times, to authors and inventors, the exclusive right to their respective writings and discoveries.*

9. To constitute tribunals inferior to the Supreme court.

10. To define and punish piracies and felonies committed on the high seas and offenses against the law of nations.

11. To declare war, grant letters of marque and reprisal and make rules concerning captures on land and water.

12. To raise and support armies, but no appropriation of money to that use shall be for a longer term than two years.

13. To provide and maintain a navy.

14. To make rules for the government and regulation of the land and naval forces.

15. To provide for calling forth the militia to execute the laws of the union, suppress insurrections and repel invasions.

16. To provide for organizing, arming and disciplining the militia and for governing such part of them as may be employed in the service of the United States, reserving to the states respectively the appointment of the officers and the authority of training the militia according to the discipline prescribed by congress.

17. To exercise exclusive legislation in all cases whatsoever over such district (not exceeding ten miles square) as may, by cession of particular states and the acceptance of congress, become the seat of government of the United States, and to exercise like authority over all places purchased, by the consent of the legislature of the state in which the same shall be, for the erection of forts, magazines, arsenals, dry docks and other needful buildings; and,

18. To make all laws which shall be necessary and proper for carrying into execution the foregoing powers, and all other powers vested by this constitution in the government of the United States or in any department or officer thereof.

Section IX. 1. The migration or importation of such persons as any of the states now existing shall think proper to admit shall not be prohibited by the congress prior to the year one thousand eight hundred and eight, but a tax or duty may be imposed on such importation, not exceeding \$10 for each person.

2. The privilege of the writ of habeas corpus shall not be suspended, unless when in cases of rebellion or invasion the public safety may require it.

3. No bill of attainder or ex post facto law shall be passed.

4. No capitation or other direct tax shall be laid, unless in proportion to the census or enumeration hereinbefore directed to be taken.

5. No tax or duty shall be laid on articles exported from any state.

6. No preference shall be given, by any regulation of commerce or revenue to the ports of one state over those of another; nor shall vessels bound to or from one state be obliged to enter, clear or pay duties in another.

7. No money shall be drawn from the treasury, but in consequence of appropriations made by law; and a regular statement and account of receipts and expenditures of all public money shall be published from time to time.

8. No title of nobility shall be granted by the United States; and no person holding any office of profit or trust under them shall, without the consent of the congress, accept of any present, emolument, office or title of any kind whatever, from any king, prince or foreign state.

Section X. 1. No state shall enter into any treaty, alliance or confederation; grant letters of marque and reprisal; coin money; emit bills of credit; make anything but gold and silver coin a tender in payment of debts; pass any bill of attainder, ex post facto law, or law impairing the obligation of contracts, or grant any title of nobility.

2. No state shall, without the consent of the congress, lay any imposts or duties on imports or exports, except what may be absolutely necessary for executing its inspection laws, and the net produce of all duties and imposts laid by any state on imports or exports shall be for the use of the treasury of the United States, and all such laws shall be subject to the revision and control of the congress.

3. No state shall, without the consent of congress, lay any

*A copyright is good for 28 years.

duty of tonnage, keep troops or ships of war in time of peace, enter into any agreement or compact with another state or with a foreign power or engage in war, unless actually invaded or in such imminent danger as will not admit of delay.

ARTICLE II

[THE EXECUTIVE DEPARTMENT.]

Section I. 1. The executive power shall be vested in a president of the United States of America. He shall hold his office during the term of four years, and together with the vice-president, chosen for the same term, be elected as follows:

2. Each state shall appoint, in such manner as the legislature thereof may direct, a number of electors, equal to the whole number of senators and representatives to which the state may be entitled in the congress; but no senator or representative or person holding an office of trust or profit under the United States shall be appointed an elector.

3. The electors shall meet in their respective states and vote by ballot for two persons, of whom one at least shall not be an inhabitant of the same state with themselves. And they shall make a list of all the persons voted for and of the number of votes for each, which list they shall sign and certify and transmit sealed to the seat of government of the United States, directed to the president of the senate. The president of the senate shall, in the presence of the senate and house of representatives, open all the certificates and the votes shall then be counted. The person having the greatest number of votes shall be the president, if such number be a majority of the whole number of electors appointed; and if there be more than one who have such majority and have an equal number of votes, then the house of representatives shall immediately choose, by ballot, one of them for president; and if no person have a majority, then from the five highest on the list the said house shall, in like manner, choose the president. But in choosing the president the votes shall be taken by states, the representation from each state having one vote; a quorum for this purpose shall consist of a member or members from two-thirds of the states, and a majority of all the states shall be necessary to a choice. In every case, after the choice of the president the person having the greatest number of votes of the electors shall be the vice-president. But if there should remain two or more who have equal votes, the senate shall choose from them by ballot, the vice-president. (Clause 3 is superseded by Amendment No. XII.)

4. The congress may determine the time of choosing the electors and the day on which they shall give their votes, which day shall be the same throughout the United States.

5. No person except a natural-born citizen or a citizen of the United States at the time of the adoption of this constitution shall be eligible to the office of president; neither shall any person be eligible to that office who shall not have attained to the age of 35 years and been fourteen years a resident within the United States.

6. In case of the removal of the president from office or of his death, resignation or inability to discharge the powers and duties of the said office, the same shall devolve on the vice-president; and the congress may, by law, provide for the case of removal, death, resignation, or inability both of the president and vice-president, declaring what officer shall then act as president, and such officer shall act accordingly, until the disability be removed or a president shall be elected.

7. The president shall, at stated times, receive for his services a compensation, which shall neither be increased nor diminished during the period for which he shall have been elected, and he shall not receive within that period any other emolument from the United States or any of them.

8. Before he enter on the execution of his office he shall take the following oath or affirmation:

I do solemnly swear (or affirm) that I will faithfully execute the office of president of the United States, and will, to the best of my ability, preserve, protect and defend the constitution of the United States.

Section II. 1. The president shall be commander in chief of the army and navy of the United States and of the militia of the several states when called into the actual service of the United States. He may require the opinion, in writing, of the principal officer in each of the executive departments upon any subject relating to the duties of their respective offices, and he shall have the power to grant reprieves and pardons for offences against the United States except in cases of impeachment.

2. He shall have power, by and with the advice and consent of the senate, to make treaties, provided two-thirds of the sen-

ators present concur; and he shall nominate, and, by and with the advice and consent of the senate, shall appoint ambassadors, other public ministers and consuls, judges of the Supreme Court and all other officers of the United States whose appointments are not herein otherwise provided for, and which shall be established by law. But the congress may, by law, vest the appointment of such inferior officers as they shall think proper in the president alone, in the courts of law or in the heads of departments.

3. The president shall have power to fill up all vacancies that may happen during the recess of the senate by granting commissions, which shall expire at the end of their next session.

Section III. He shall, from time to time, give to the congress information of the state of the union and recommend to their consideration such measures as he shall judge necessary and expedient. He may, on extraordinary occasions, convene both houses or either of them, and in case of disagreement between them, with respect to the time of adjournment, he may adjourn them to such time as he shall think proper. He shall receive ambassadors and other public ministers. He shall take care that the laws be faithfully executed, and shall commission all the officers of the United States.

Section IV. The president, vice-president and all civil officers of the United States shall be removed from office on impeachment for and conviction of treason, bribery or other high crimes and misdemeanors.

ARTICLE III

[THE JUDICIAL DEPARTMENT.]

Section I. The judicial power of the United States shall be vested in one Supreme Court and in such inferior courts as the congress may, from time to time, ordain and establish. The judges, both of the Supreme and inferior courts, shall hold their offices during good behavior, and shall, at stated times, receive for their services a compensation, which shall not be diminished during their continuance in office.

Section II. 1. The judicial power shall extend to all cases, in law and equity, arising under this constitution, the laws of the United States and treaties made or which shall be made, under their authority; to all cases affecting ambassadors, other public ministers and consuls; to all cases of admiralty and maritime jurisdiction; to controversies to which the United States shall be a party; to controversies between two or more states; between a state and citizens of another state; between citizens of different states; between citizens of the same state, claiming lands under grants of different states, and between a state or the citizens thereof and foreign states, citizens or subjects.

2. In all cases affecting ambassadors, other public ministers and consuls and those in which a state shall be a party the Supreme Court shall have original jurisdiction. In all the other cases before mentioned the Supreme Court shall have appellate jurisdiction, both as to law and fact, with such exceptions and under such regulations as the congress shall make.

3. The trial of all crimes, except in cases of impeachment, shall be by jury; and such trials shall be held in the state where the said crimes shall have been committed, but when not committed within any state the trial shall be at such place or places as the congress may by law have directed.

Section III. 1. Treason against the United States shall consist only in levying war against them or in adhering to their enemies, giving them aid and comfort. No person shall be convicted of treason unless on the testimony of two witnesses to the same overt act or on confession in open court.

2. The congress shall have power to declare the punishment of treason, but no attainder of treason shall work corruption of blood or forfeiture except during the life of the person attained.

ARTICLE IV

[RIGHTS OF STATES.]

Section I. Full faith and credit shall be given in each state to the public acts, records and judicial proceedings of every other state. And the congress may, by general laws, prescribe the manner in which such acts, records and proceedings shall be proved and the effect thereof.

Section II. 1. The citizens of each state shall be entitled to all privileges and immunities of citizens in the several states.

2. A person charged in any state with treason, felony or other crime, who shall flee from justice and be found in another state, shall, on demand of the executive authority of the state from

which he fled, be delivered up, to be removed to the state having jurisdiction of the crime.

3. No person held to service or labor in one state under the laws thereof, escaping into another, shall, in consequence of any law or regulation therein be discharged from such service or labor, but shall be delivered up on claim of the party to whom such service or labor may be due.

Section III. 1. New states may be admitted by the congress of this union; but no new state shall be formed or erected within the jurisdiction of any other state, nor any state be formed by the junction of two or more states or parts of states, without the consent of the legislatures of the states concerned as well as of the congress.

2. The congress shall have power to dispose of and make all needful rules and regulations respecting the territory or other property belonging to the United States, and nothing in this constitution shall be so construed as to prejudice any claims of the United States or of any particular state.

Section IV. The United States shall guarantee to every state in this union a republican form of government, and shall protect each of them against invasion, and on application of the legislature or of the executive (when the legislature cannot be convened) against domestic violence.

ARTICLE V

[AMENDMENTS.]

The congress, whenever two-thirds of both houses shall deem it necessary, shall propose amendments to this constitution, or on the application of the legislatures of two-thirds of the several states, shall call a convention for proposing amendments, which, in either case, shall be valid to all intents and purposes as part of this constitution, when ratified by the legislatures of three-fourths of the several states or by conventions in three-fourths thereof, as the one or the other mode of ratification may be proposed by the congress; provided, that no amendment which may be made prior to the year one thousand eight hundred and eight shall in any manner affect the first and fourth clauses in the ninth section of the first article; and that no state, without its consent, shall be deprived of its equal suffrage in the senate.

ARTICLE VI

[AUTHORITY OF CONSTITUTION.]

Section I. 1. All debts contracted and engagements entered into before the adoption of this constitution shall be as valid against the United States under this constitution as under the confederation.

2. This constitution and the laws of the United States which shall be made in pursuance thereof and all treaties made, or which shall be made, under authority of the United States, shall be the supreme law of the land, and the judges in every state shall be bound thereby, anything in the constitution or laws of any state to the contrary notwithstanding.

3. The senators and representatives before mentioned and the members of the several state legislatures and all executive and judicial officers, both of the United States and of the several states, shall be bound, by oath or affirmation, to support this constitution; but no religious test shall ever be required as a qualification to any office or public trust under the United States.

ARTICLE VII

[RATIFICATION OF CONSTITUTION.]

The ratification of the conventions of nine states shall be sufficient for the establishment of this constitution between the states so ratifying the same.

Done in convention, by the unanimous consent of the states present, the seventeenth day of September, in the year of our Lord one thousand seven hundred and eighty-seven, and of the independence of the United States of America the twelfth.

AMENDMENTS TO THE CONSTITUTION

[The first ten amendments were proposed at the first session of the first congress (1789) and adopted in 1791.]

AMENDMENT I

Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech or of the press; or the right of the people

peaceably to assemble, and to petition the Government for a redress of grievances.

AMENDMENT II

A well-regulated militia being necessary to the security of a free state, the right of the people, to keep and bear arms shall not be infringed.

AMENDMENT III

No soldier shall, in time of peace, be quartered in any house without the consent of the owner, nor in time of war but in a manner to be prescribed by law.

AMENDMENT IV

The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no warrants shall issue but upon probable cause, supported by oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.

AMENDMENT V

No person shall be held to answer for a capital or other infamous crime unless on a presentment or indictment of a grand jury, except in cases arising in the land or naval forces, or in the militia, when in actual service, in time of war or public danger; nor shall any person be subject for the same offence to be twice put in jeopardy of life or limb; nor shall be compelled in any criminal case to be a witness against himself, nor be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use without just compensation.

AMENDMENT VI

In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury of the state and district wherein the crime shall have been committed, which district shall have been previously ascertained by law, and to be informed of the nature and cause of the accusation; and to be confronted with the witnesses against him; to have compulsory process for obtaining witnesses in his favor, and to have the assistance of counsel for his defence.

AMENDMENT VII.

In suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved, and no fact tried by a jury shall be otherwise re-examined in any court of the United States than according to the rules of the common law.

AMENDMENT VIII

Excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.

AMENDMENT IX

The enumeration in the Constitution of certain rights shall not be construed to deny or disparage others retained by the people.

AMENDMENT X

The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.

AMENDMENT XI

[The eleventh amendment was proposed at the first session of the third congress (1794) and adopted in 1798.]

The judicial power of the United States shall not be construed to extend to any suit in law or equity, commenced or prosecuted against one of the United States, by citizens of another state, or by citizens or subjects of any foreign state.

AMENDMENT XII

[The twelfth amendment is a substitute for Clause 3, Sec. 1, Art. II., adopted in 1804.]

The electors shall meet in their respective states, and vote by ballot for president and vice-president, one of whom at least shall not be an inhabitant of the same state with themselves; they shall name in their ballots the person voted for as president, and in distinct ballots the person voted for as vice-president; and

they shall make distinct lists of all persons voted for as president and of all persons voted for as vice-president, and of the number of votes for each, which lists they shall sign and certify and transmit sealed to the seat of the government of the United States, directed to the president of the senate; the president of the senate shall, in the presence of the senate and house of representatives, open all the certificates and the votes shall then be counted; the person having the greatest number of votes for president shall be the president, if such number be a majority of the whole number of electors appointed; and if no person have such majority, then from the persons having the highest numbers, not exceeding three, on the list of those voted for as president, the house of representatives shall choose immediately, by ballot, the president. But in choosing the president, the votes shall be taken by states, the representation from each state having one vote; a quorum for this purpose shall consist of a member or members from two-thirds of the states, and a majority of all the states shall be necessary to a choice. And if the house of representatives shall not choose a president, whenever the right of choice shall devolve upon them, before the fourth day of March next following, then the vice-president shall act as president, as in the case of the death or other constitutional disability of the president. The person having the greatest number of votes as vice-president shall be the vice-president, if such number be a majority of the whole number of electors appointed, and if no person have a majority, then from the two highest numbers on the list the senate shall choose a vice-president; a quorum for the purpose shall consist of two-thirds of the whole number of senators, and a majority of the whole number shall be necessary to a choice. But no person constitutionally ineligible to the office of president shall be eligible to that of vice-president of the United States.

AMENDMENT XIII

[The thirteenth amendment was proposed at the second session of the thirty-eighth congress (1865) and adopted in 1865.]

Section 1. Neither slavery nor involuntary servitude, except as a punishment for crime whereof the party shall have been duly convicted, shall exist within the United States or any place subject to their jurisdiction.

Section 2. Congress shall have power to enforce this article by appropriate legislation.

AMENDMENT XIV

[The fourteenth amendment proposed at first session of thirty-ninth congress (1866) and adopted in 1868.]

Section 1. All persons born or naturalized in the United States and subject to the jurisdiction thereof are citizens of the United States and of the state wherein they reside. No state shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States, nor shall any state deprive any person of life, liberty or property without due process of law, nor deny to any person within its jurisdiction the equal protection of the laws.

Section 2. Representatives shall be apportioned among the several states according to their respective numbers, counting the whole number of persons in each state, excluding Indians not taxed. But when the right to vote at any election for the choice of electors for president and vice-president of the United States, representatives in congress, the executive and judicial officers of a state or the members of the legislature thereof is denied to any of the male inhabitants of such state, being 21 years of age and citizens of the United States, or in any way abridged, except for participation in rebellion or other crime, the basis of representation therein shall be reduced in the proportion which the number of such male citizens shall bear to the whole number of male citizens 21 years of age in such state.

Section 3. No person shall be a senator or representative in congress or elector of president and vice-president, or hold any office, civil or military, under the United States, or under any state, who, having previously taken the oath as a member of congress or as an officer of the United States, or as a member of any state legislature, or as an executive or judicial officer of any state, to support the constitution of the United States, shall have engaged in insurrection or rebellion against the same or given aid or comfort to the enemies thereof. But congress may, by a vote of two-thirds of each house, remove such disability.

Section 4. The validity of the public debt of the United States, authorized by law, including debts incurred for payment of pensions and bounties for services in suppressing insurrection or rebellion, shall not be questioned. But neither the United States nor any state shall assume or pay any debt or obligation incurred in aid of insurrection or rebellion against the United States or any claim for the loss or emancipation of any slave; but all such debts, obligations and claims shall be held illegal and void.

Section 5. The congress shall have the power to enforce by appropriate legislation the provisions of this article.

AMENDMENT XV

[The fifteenth amendment was proposed at second session of fortieth congress (1869) and adopted in 1870.]

Section 1. The right of citizens of the United States to vote shall not be denied or abridged by the United States or any state on account of race, color or previous condition of servitude.

Section 2. The congress shall have power to enforce this article by appropriate legislation.

AMENDMENT XVI

[The sixteenth amendment was proposed at the first session of the sixty-first congress 1909 and adopted in 1913.]

The congress shall have power to lay and collect taxes on incomes, from whatever source derived, without apportionment, among the several states, and without regard to any census or enumeration.

AMENDMENT XVII

[The seventeenth amendment was proposed at the second session of sixty-second congress and adopted in 1913.]

The senate of the United States shall be composed of two senators from each state, elected by the people thereof, for six years; and each senator shall have one vote. The electors in each state shall have the qualifications requisite for electors of the most numerous branch of the state legislatures.

When vacancies happen in the representation of any state in the senate, the executive authority of such state shall issue writs of election to fill such vacancies, provided that the legislature of any state may empower the executive thereof to make temporary appointments until the people fill the vacancies by election as the legislature may direct.

DIRECT ELECTION OF SENATORS

The 17th amendment primarily transfers the power of electing senators from the state legislatures to the people at the polls. To effect this change it was necessary to alter the machinery for the filling of vacancies in the senate.

For more than sixty years proposals have been made to change the Constitution so as to provide for the direct election of senators. It was not, however, until June 24, 1911, that the senate was induced to give its consent to the change. On that day it voted to submit to the states the proposed amendment. The resolution to submit had already passed the House in a somewhat different form. Before adjournment of the session, both houses agreed to the language to be employed, and the resolution was deposited with the Secretary of State, May 16, 1912, for distribution among the states.

No legislation by congress will be necessary to put the changes into effect. It will be incumbent upon the various states to see to it that proper provision is made by the names of senators going on the regular ballots. Should any state fail to do so, it has been suggested that congress might exercise its power of supervising that state's voting regulations so as to require the name to be placed on the ballots.

The first senators to be elected by the new method were those who took their seats for the term that began on March 4, 1915.

THE MONROE DOCTRINE

The Monroe Doctrine received its name from President Monroe because of the following statement of policy which he made in his message to congress, Dec. 2, 1823:

"In the discussions to which this interest has given rise, [referring to steps taken to arrange the respective rights of Russia, England and the United States on the north-west coast of this continent], and in the arrangements by which they may terminate, the occasion has been deemed proper for asserting, as a principle in which the rights and interests of the United States are involved, that the American continents, by the free and independent condition which they have assumed and maintain, are henceforth not to be considered as subjects for future colonization by any European power. * * * We owe it, therefore, to candor and to the amicable relations existing between the United States and those powers to declare that we should consider any attempt on their part to extend their system to any portion of this hemisphere as dangerous to our peace and safety. With the existing colonies or dependencies of any European power we have not interfered and shall not interfere. But with

the governments who have declared their independence and maintain it, and whose independence we have, on great consideration and on just principles, acknowledged, we could not view any interposition for the purpose of oppressing them or controlling in any other manner their destiny by any European power in any other light than as the manifestation of an unfriendly disposition toward the United States."

This has been the policy of the government almost from the beginning. Washington in his farewell address, intimated such a feeling, in declaring a converse policy of non-interference in European affairs. During Cleveland's administration the Monroe Doctrine was put to the supreme test in connection with the claims of various countries against Venezuela, precipitated by the pacific blockade of its ports by British, German, and Italian war vessels and especially Great Britain's claim to territory. During President Taft's administration the senate did not ratify the submitted arbitration treaties with England and France mainly because our policy of the Monroe Doctrine would not be compatible with such action.

CITIZENSHIP AND NATURALIZATION

CITIZENSHIP.—The Federal statutes declare the following persons to be citizens:

All persons born in United States and not subject to any foreign power, excluding Indians not taxed.

All persons legally naturalized.

All children born out of jurisdiction of United States, whose fathers are at time of their birth citizens thereof, but the right of citizenship shall not descend to children whose fathers have never resided in the United States.

Any American woman who marries a foreigner shall take the nationality of her husband. At the termination of the marital relation she may resume her American citizenship, if abroad, by registering as an American citizen within one year with a consul of the United States, or by returning to reside in the United States, or, if residing in the United States at the termination of the marital relation, by continuing to reside therein. All persons who were citizens of the Republic of Hawaii on August 12, 1898 are citizens of the United States and Hawaii. The inhabitants of the Philippines and Porto Rico, while entitled to protection of the United States under the Constitution, are not citizens of the United States, and cannot become naturalized, under existing law, without becoming residents of a state or organized territory of the United States. The courts have held, however, that native Filipinos are not white persons within the provisions of Section 2169 of the Revised Statutes, and, therefore, cannot be naturalized.

NATURALIZATION.—The applicant for citizenship must have resided in the United States for the continued term of at least 5 years next preceding his admission, at least the last year of which must have been spent within the state or territory where the court is located to which he applies for admission. Not less than two, nor more than seven, years before filing petition for naturalization, he must file, under oath or affirmation, before a state or Federal court of record exercising jurisdiction over his place of residence, and which court has been supplied with the proper naturalization forms issued by the Government, a declaration of his intention to become a citizen. Any alien over 18 years of age may declare intention and every person desiring naturalization must declare intention, unless specifically exempted by law. There is a fee of \$1 for receiving and filing declaration of intention; and is \$4 for filing petition, which includes the entry of final order, and, if granted, the issuance of citizenship certificate. Blanks for statements of facts required for first or final papers should be obtained from court clerk.

An alien who arrived in the United States after June 29, 1906, is required to support his petition by a certificate of arrival in the United States, which must be attached to petition, when filed. The certificate must be obtained through the Bureau of Naturalization, and should be requested upon a form obtained from the clerk of court, before appearing to file a petition.

The petition must be accompanied by the affidavits of at least two witnesses who are citizens of the United States who have known the applicant for the entire time, up to 5 years, but not less than one year, spent in the State in which the petition is filed. If the applicant has resided in the State for less than five years, the remaining portion of the five years spent in some other State may be established by the personal appearance of two witnesses, at the final hearing, or by depositions taken upon notice, the form for which should be obtained from court clerk when petition is filed.

NATURALIZATION

To admit of notice being posted for the required period, hearing on a petition cannot be had by the court in less than 90 days after it is filed, and then only on a rule day fixed by order of court, occurring after the expiration of the 90-day period.

Children of a naturalized citizen who become residents of the United States during their minority become citizens without further naturalization proceedings.

Aliens of the age of 21 years and upward, who have enlisted in the armies of the United States, in the regular or volunteer forces, and have been honorably discharged, are entitled to become citizens upon petition, without previous declaration of intention, and are not required to prove more than 1 year's residence in the United States.

Seamen of foreign birth, who have declared intention to become citizens, may be naturalized after 3 years' service on merchant ships of the United States, subsequent to the date of such declaration, and the production of certificate of discharge and good conduct during that time.

Under the Act of July 26, 1894, seamen of United States Navy honorably discharged after 5 years of continuous service, and United States marines who have served one enlistment in the United States Marine Corps, are exempted from declaring their intentions, and are entitled to petition for naturalization.

Under the Act of June 30, 1914, any alien of the age of 21 years and upward, who might under existing law become a citizen, and has served one enlistment of not less than four years in the Navy, or Marine Corps, or has completed four years in the Revenue-Cutter Service, and has received an honorable discharge or an ordinary discharge with recommendation for re-enlistment, or who has completed four years of honorable service in the Naval Auxiliary service, shall be admitted to citizenship, upon his petition, without any previous declaration of intention, and without proof of residence on shore, upon proof of good moral character and service, provided, that such discharges shall be accepted as proof of good moral character, and that courts of naturalization jurisdiction may immediately naturalize any alien applying under and furnishing the proof prescribed by the foregoing provisions. The courts have held that said law did not repeal the act of July 26, 1894, referred to in the preceding paragraph. It has also been held by some courts that naturalization may not be granted immediately, under the act of June 30, 1914, (without posting notice of petition for at least 90 days), unless the applicant is still in one of the branches of the Federal service enumerated, or his discharge therefrom was of such a recent date as to admit of re-enlistment with continuous service credit. If his discharge occurred before that time, it is necessary that he petition under the act of July 26, 1894, referred to above, or file a declaration of intention, and proceed under the provisions of the general naturalization act.

NATURALIZATION FORBIDDEN.—Only free white persons and persons of African descent can be citizens. Sec. 14, chap. 126 of the laws of 1882 expressly prohibited the naturalization of Chinamen.

CERTIFICATE OF NATURALIZATION.—No certificate of naturalization can be issued within 30 days preceding a general election. Petitions for first or second papers, however, may be received at any time by court clerk, in his regularly established office, or in open court.

NATURALIZATION IN 1915

(YEAR ENDING JUNE 30)

State	Certificates denied	Certificates granted	Total petitions disposed of	Percentage of denials
Alabama.....	42	155	197	21
Alaska.....	6	107	113	5
Arizona.....	67	295	362	19
Arkansas.....	36	86	122	30
California.....	558	4,466	5,024	11
Colorado.....	156	852	1,008	15
Connecticut.....	260	1,649	1,909	14
Delaware.....	8	91	99	8
District of Columbia.....	28	209	237	12
Florida.....	52	135	187	28
Georgia.....	65	205	270	24
Hawaii.....		68	68	
Idaho.....	58	380	438	13
Illinois.....	1,106	8,846	9,952	11
Indiana.....	209	327	1,036	20
Iowa.....	373	969	1,342	28
Kansas.....	178	469	647	28
Kentucky.....	24	135	159	15
Louisiana.....	63	323	386	16
Maine.....	43	534	577	7
Maryland.....	45	497	542	8
Massachusetts.....	761	5,121	5,882	13
Michigan.....	429	2,846	3,275	13
Minnesota.....	291	3,232	3,523	8
Mississippi.....	11	49	60	18
Missouri.....	317	825	1,142	28
Montana.....	385	1,837	2,222	17
Nebraska.....	207	813	1,020	20
Nevada.....	61	117	178	34
New Hampshire.....	67	382	449	15
New Jersey.....	634	3,841	4,475	14
New Mexico.....	38	94	132	29
New York.....	3,942	22,427	26,369	15
North Carolina.....	3	43	46	7
North Dakota.....	144	1,366	1,510	10
Ohio.....	428	4,145	4,573	9
Oklahoma.....	106	126	232	46
Oregon.....	166	871	1,037	16
Pennsylvania.....	834	15,964	16,798	5
Rhode Island.....	61	1,027	1,088	6
South Carolina.....	23	37	60	38
South Dakota.....	148	768	916	16
Tennessee.....	24	45	69	35
Texas.....	128	643	771	17
Utah.....	73	365	438	17
Vermont.....	27	352	379	7
Virginia.....	23	235	258	9
Washington.....	401	2,087	2,488	16
West Virginia.....	83	225	308	27
Wisconsin.....	413	4,897	5,310	8
Wyoming.....	86	312	398	22
Total.....	13,691	96,390	110,081	12

GROWTH OF PETITIONS

	Certificates	1913	1914	1915
Granted.....		82,017	105,439	96,390
Denied.....		10,891	13,133	13,691
Total.....		92,908	118,572	110,081

FIRST COLLEGE IN THE UNITED STATES

The first commencement of Harvard College, the first of the educational institutions of the United States, was held Aug. 9, 1642. Nine young men comprised the first class of graduates. In 1636 the General Court of Massachusetts agreed to give £400 "toward a schoale or college," and the next year ordered that the institution be established at "Newetowne." In 1638 John Harvard, a preacher, died and bequeathed about \$700 to the college to be built at Newtown. In his honor the institution was named Harvard College, while the name of the town was changed to Cambridge, in honor of the great English University. It is doubtful if the original grant of £400 was ever

actually paid, and, in any event, the college project remained in abeyance until the bequest of Harvard at once initiated the necessary measures. The original fund was added to in various ways, and much money was raised by lotteries. Henry Dunster, a Hebrew scholar, was chosen first President, and a class began a course of study in 1638, and nine graduated in 1642.

COTTON AND SOME OF ITS USES

The cotton industry is one of the largest in the United States. In 1916, the United States exported over 3 billion pounds of raw cotton. There are many uses for it. Cotton is the basis of high explosives and of smokeless powder. The war ship carries relatively more cotton than was used by the frigate of a century ago with all its sails. A film of cotton cloth spread across a few poles shelters the Hottentot from the heat of the sun. The Arctic explorer now discards fur for a duck suit padded with cotton, and finds it both warmer and lighter. Celluloid is nothing but cotton treated with acids. The great office buildings of our cities are dependent upon cotton for the cement that is carried to the spot in bags that consume 180,000,000 yards of cotton cloth every year. The railroads and trolley lines of the United States use more than 250,000 bales of cotton a year for enamel seats, plush chairs, leather seats and air brake hose. The automobile industry consumes about 400,000 bales of cotton a year. Most of it goes into the cotton duck basis which is the essential feature of the tires. The rest is used largely for the soft cushions of cotton felt covered with more cotton that looks like leather. Cotton bags have displaced barrels to a great extent, as they are cheaper. Fifteen million yards of cotton duck annually are used for coal bags, for delivering coal where a chute cannot be employed. Cotton duck is used extensively for ventilating chutes in coal mines. Tarpaulins have replaced other covers for flat cars, vans and wagons. Cotton blankets are largely superseding woolen ones. Fully 20,000,000 yards of cotton duck are consumed annually in the Canadian Northwest for overcoats, replacing fur. Cotton cloth has taken the place of wallpaper in thousands of modern homes. Buckram, made of cotton, covers books. Pottery establishments use millions of yards of army duck annually for squeezing water out of clay. The government uses 4,000,000 yards of cotton duck per year for coin bags. It takes 2,000,000 yards of cotton duck annually to make into bags to hang over the noses of horses. Millions of yards of duck are used every year for filtering oils; more than 50,000,000 yards of cotton ducking for rubber belting and rubber hose. The same substance is used for stiffening the gauntlets of gloves, leggings, tennis and gymnasium shoes, canopies for shower baths where rubber formerly was used, and the covering of trunks and telescopes. About 4,000,000 yards are used annually for draining mines. Wood-pulp paper mills and other paper mills use cotton duck for driers. Cotton drills and duck to the extent of millions of yards annually are used for wagon tops and waterproof coats. Mattresses of cotton felt rival hair mattresses. The largest individual contract for cotton goods in the world is the one placed annually by the greatest of the harvester machine companies. It calls for millions of yards of cotton duck, the consumption for the entire harvesting machine industry being estimated at above 50,000,000 yards yearly. In normal times the New York market alone consumes 400,000 pounds of yarn weekly for the electrical industry; it is necessary for insulation.

LIBRARY OF CONGRESS

East Capitol Street, Washington, D. C.

The Library of Congress was established in 1800 and replenished in 1851-1852, and since that date has been increased (1) by regular annual appropriations by Congress (\$98,000 for books and periodicals); (2) by deposits under the copyright law; (3) by gifts and exchanges; (4) by the exchanges of the Smithsonian Institution, the library of which (40,000 volumes) was, in 1866, deposited in the Library of Congress, with the stipulation that future accessions should follow it. It comprises about 2,100,000 printed books and pamphlets, the floor space of the building (erected at the cost of \$6,347,000, and first occupied in 1897) being 326,196 square feet, and the capacity of the book stacks 3,540,000 octavo volumes and 84,000 volumes of newspapers, the shelving extending to nearly 100 miles. The library is maintained by Congress.

THE NATIONAL PURE FOOD LAW

The Food and Drugs Act, June 30, 1906, as Amended August 23, 1912

The National Pure Food Law, which was approved June 30, 1906, and which became effective January 1, 1907, is entitled: "An Act for preventing the manufacture, sale, or transportation of adulterated or misbranded or poisonous or deleterious foods, drugs, medicines, and liquors, and for regulating traffic therein, and for other purposes."

Sec. 1 makes it unlawful for any person to manufacture within any Territory or the District of Columbia any article of food or drug which is adulterated or misbranded, within the meaning of this Act; and any person who shall violate any of the provisions of this section shall be guilty of a misdemeanor, and for each offense shall, upon conviction thereof, be fined not to exceed five hundred dollars or shall be sentenced to one year's imprisonment, or both such fine and imprisonment, in the discretion of the court, and for each subsequent offense and conviction thereof shall be fined not less than one thousand dollars or sentenced to one year's imprisonment, or both such fine and imprisonment, in the discretion of the court.

Sec. 2 makes the Act applicable to all drugs introduced into any State or Territory or the District of Columbia, from any other State or Territory or the District of Columbia, or from or to any foreign country.

Sec. 3. That the Secretary of the Treasury, the Secretary of Agriculture, and the Secretary of Commerce and Labor shall make uniform rules and regulations for carrying out the provisions of this Act, including the collection and examination of specimens of foods and drugs manufactured or offered for sale in the District of Columbia, or in any Territory of the United States, or which shall be offered for sale in unbroken packages in any State other than that in which they shall have been respectively manufactured or produced, or which shall be received from any foreign country, or intended for shipment to any foreign country, or which may be submitted for examination by the chief health, food, or drug officer of any State, Territory, or the District of Columbia, or at any domestic or foreign port through which such produce is offered for interstate commerce, or for export or import between the United States and any foreign port or country.

Sec. 4. That the examinations of specimens of foods and drugs shall be made in the Bureau of Chemistry of the Department of Agriculture, or under the direction and supervision of such Bureau, for the purpose of determining from such examinations whether such articles are adulterated or misbranded within the meaning of this Act; and if it shall appear from any such examination that any of such specimens is adulterated or misbranded within the meaning of this Act, the Secretary of Agriculture shall cause notice thereof to be given to the party from whom such sample was obtained. Any party so notified shall be given an opportunity to be heard, under such rules and regulations as may be prescribed as aforesaid, and if it appears that any of the provisions of this Act have been violated by such party, then the Secretary of Agriculture shall at once certify the facts to the proper United States district attorney, with a copy of the results of the analysis or the examination of such article duly authenticated by the analyst or officer making such examination, under the oath of such officer. After judgment of the court, notice shall be given by publication in such manner as may be prescribed by the rules and regulations aforesaid.

Sec. 5. That it shall be the duty of each district attorney to whom the Secretary of Agriculture shall report any violation of this Act, or to whom any health or food or drug officer or agent of any State, Territory, or the District of Columbia shall present satisfactory evidence of any such violation, to cause appropriate proceedings to be commenced and prosecuted in the proper courts of the United States, without delay, for the enforcement of the penalties as in such case herein provided.

Sec. 6. That the term "drug" as used in this Act, shall include all medicines and preparations recognized in the United States Pharmacopoeia or National Formulary for internal or external use, and any substance or mixture of substances intended to be used for the cure, mitigation, or prevention of disease of either man or other animals. The term "food," as used herein, shall include all articles used for food, drink, confectionery, or condiment by man or other animals, whether simple, mixed, or compound.

Sec. 7. That for the purposes of this Act an article shall be deemed to be adulterated:

In case of drugs:

First. If, when a drug is sold under or by a name recognized in the United States Pharmacopoeia or National Formulary, it differs from the standard of strength, quality, or purity, as determined by the test laid down in the United States Pharmacopoeia or National Formulary official at the time of investigation: *Provided*, That no drug defined in the United States Pharmacopoeia or National Formulary shall be deemed to be adulterated under this provision if the standard of strength, quality, or purity be plainly stated upon the bottle, box, or other container thereof although the standard may differ from that determined by the test laid down in the United States Pharmacopoeia or National Formulary.

Second. If its strength or purity fall below the professed standard or quality under which it is sold.

In the case of confectionery:

If it contain terra alba, barytes, talc, chrome yellow, or other mineral substance or poisonous color or flavor, or other ingredient deleterious or detrimental to health, or any vinous, malt, or spirituous liquor or compound or narcotic drug.

In the case of food:

First. If any substance has been mixed and packed with it so as to reduce or lower or injuriously affect its quality or strength.

Second. If any substance has been substituted wholly or in part for the article.

Third. If any valuable constituent of the article has been wholly or in part abstracted.

Fourth. If it be mixed, colored, powdered, coated, or stained in a manner whereby damage or inferiority is concealed.

Fifth. If it contain any added poisonous or other added deleterious ingredient which may render such article injurious to health; *Provided*, That when in the preparation of food products for shipment they are preserved by any external application applied in such manner that the preservative is necessarily removed mechanically, or by maceration in water, or otherwise, and directions for the removal of said preservative shall be printed on the covering or the package, the provisions of this Act shall be construed as applying only when said products are ready for consumption.

Sixth. If it consists in whole or in part of a filthy, decomposed, or putrid animal or vegetable substance, or any portion of an animal unfit for food, whether manufactured or not, or if it is the product of a diseased animal, or one that has died otherwise than by slaughter.

Sec. 8. That the term "misbranded," as used herein, shall apply to all drugs or articles of food, or articles which enter into the composition of food, the package or label of which shall bear any statement, design, or device regarding such article, or the ingredients or substances contained therein which shall be false or misleading in any particular, and to any food or drug product which is falsely branded as to the State, Territory, or country in which it is manufactured or produced.

That for the purposes of this Act an article shall also be deemed to be misbranded:

In case of drugs:

First. If it be an imitation of or offered for sale under the name of another article.

Second. If the contents of the package as originally put up shall have been removed, in whole or in part, and other contents shall have been placed in such package, or if the package fail to bear a statement on the label of the quantity or proportion of any alcohol, morphine, opium, cocaine, heroin, alpha or beta eucaine, chloroform, cannabis indica, chloral hydrate, or acetanilide, or any derivative or preparation of any such substances contained therein.

Third. If its package or label shall bear or contain any statement, design, or device regarding the curative or therapeutic effect of such article or any of the ingredients or substances contained therein, which is false and fraudulent.

In the case of food:

First. If it be an imitation of or offered for sale under the distinctive name of another article.

Second. If it be labeled or branded so as to deceive or mislead the purchaser, or purport to be a foreign product when not so, or if the contents of the package as originally put up shall have been removed in whole or in part and other contents

shall have been placed in such package, or if it fail to bear a statement on the label of the quantity or proportion of any morphine, opium, cocaine, heroin, alpha or beta eucaine, chloroform, cannabis indica, chloral hydrate, or acetanilide, or any derivative or preparation of any of such substances contained therein.

Third.* If in package form, the quantity of the contents be not plainly and conspicuously marked on the outside of the package in terms of weight, measure, or numerical count; *Provided, however*, That reasonable variations shall be permitted, and tolerances and also exemptions as to small packages shall be established by rules and regulations made in accordance with the provisions of section three of this Act.

Fourth. If the package containing it or its label shall bear any statement, design, or device regarding the ingredients or the substances contained therein, which statement, design, or device shall be false or misleading in any particular: *Provided*, That an article of food which does not contain any added poisonous or deleterious ingredients shall not be deemed to be adulterated or misbranded in the following cases:

First. In the case of mixtures or compounds which may be now or from time to time hereafter known as articles of food, under their own distinctive names, and not an imitation of or offered for sale under the distinctive name of another article, if the name be accompanied on the same label or brand with a statement of the place where said article has been manufactured or produced.

Second. In the case of articles labeled, branded, or tagged so as to plainly indicate that they are compounds, imitations, or

* The act of March 3, 1913, provides that no penalty of fine, imprisonment, or confiscation shall be enforced for any violation of its provisions as to domestic products prepared or foreign products imported prior to eighteen months after its passage.

blends, and the word "compound," "imitation," or "blend," as the case may be, is plainly stated on the package in which it is offered for sale: *Provided*, That the term blend as used herein shall be construed to mean a mixture of like substances, not excluding harmless coloring or flavoring ingredients used for the purpose of coloring and flavoring only: *And provided further*, That nothing in this Act shall be construed as requiring or compelling proprietors or manufacturers of proprietary foods which contain no unwholesome added ingredient to disclose their trade formulas, except in so far as the provisions of this act may require to secure freedom from adulteration or misbranding.

SEC. 9. That no dealer shall be prosecuted under the provisions of this Act when he can establish a guaranty signed by the wholesaler, jobber, manufacturer, or other party residing in the United States, from whom he purchases such articles, to the effect that the same is not adulterated or misbranded within the meaning of this Act, designating it.

SEC. 10 provides the methods of prosecuting offenders and destroying goods imported or offered for import which are falsely labeled or adulterated.

SEC. 11 provides for the examination of samples of foods and drugs which are being imported into the United States and offered for import.

SEC. 12 provides that the term "Territory" as used in this Act shall include the insular possessions of the United States. The word "person" as used in this Act shall be construed to import both the plural and the singular, as the case demands, and shall include corporations, companies, societies and associations.

INTERSTATE COMMERCE LAW

The original act to regulate commerce, approved February 4, 1887, provided for a commission of five members. By various subsequent enactments the powers of the commission have been increased, and the scope of the regulating statute widened. Among the more important of these enactments are the acts of March 2, 1889; the Elkins Act, approved February 19, 1903; the Hepburn Act, approved February 29, 1906; the Mann-Elkins Act of June 18, 1910; and the act of August 24, 1912. Under the act of June 29, 1906, the commission is now composed of seven members.

The act to regulate commerce applies to all common carriers engaged in the transportation of oil or other commodities, except water, and except, natural or artificial gas, by means of pipe lines, or partly by pipe lines and partly by railroad, or partly by pipe lines and partly by water, and to telegraph, telephone, and cable companies (whether wire or wireless) engaged in sending messages from one State, Territory, or District of the United States to any other State, Territory, or District of the United States, or to any foreign country, and to common carriers engaged in interstate transportation of passengers or property wholly by railroad (or partly by railroad and partly by water when both are used under a common control, management, or arrangement for a continuous carriage or shipment); also to express companies and sleeping-car companies; and to bridges or ferries used or operated in connection with any railroad engaged in interstate transportation.

The act to regulate commerce requires all rates to be reasonable and just; prohibits preferential rates for transportation service performed under like circumstances and conditions; prohibits undue or unreasonable preferences or advantages in rates or facilities and the charging of a higher rate for a shorter than for a longer haul, over the same line, in the same direction, the shorter being included within the longer haul. It is provided, however, that the commission may, in special cases, after investigation, authorize carriers to charge less for longer than for shorter distances. The commission is authorized to require carriers to establish through routes and joint rates. The commission is also authorized to require carriers subject to the act to construct switch connections with lateral branch lines of railroads and private sidetracks. The act provides that where two or more through routes and through rates shall have been established shippers shall have the right to designate in writing via which of such through routes the property shall be transported to destination.

The commission has jurisdiction, upon complaint or in a pro-

ceeding instituted upon its own initiative, and after full hearing, to determine and prescribe reasonable rates, regulations, and practices; to award reparation to injured shippers; and to require carriers to cease and desist from unjust discrimination or undue or unreasonable preferences.

Carriers are required to publish and file all rates, rules, and regulations applying to interstate traffic, and are prohibited from engaging in interstate transportation unless such rates, rules, and regulations are published and filed. Severe penalties are provided in the statute for failure to observe the rates and regulations shown in the published tariffs.

The commission may inquire into the management of the business of all common carriers subject to the provisions of the act to regulate commerce, and may prescribe the accounts, records, and memoranda which shall be kept by the carriers, which shall be open to examination by the commission through its authorized agents or examiners. Carriers are required to file annual reports with the commission, and such other reports as may from time to time be required.

The commission appoints a secretary, assistant secretary, and clerks, whose duties are not specifically defined by the act; and also appoints attorneys, examiners, inspectors, and special agents.

By the act of June 18, 1910 (Mann-Elkins law), the jurisdiction of the commission was increased as to through routes and joint rates, freight classification, switch connections, long and short hauls, filing or rejection of rate schedules, investigations on own motion, making reasonable rates, suspension of proposed rates, and other matters. This act also authorized the President to appoint a special commission to investigate questions pertaining to the issuance of railroad stocks and bonds.

By act approved August 24, 1912 (sec. 11), a new paragraph was added to section 5 of the act to regulate commerce, by which it is made unlawful after July 1, 1914, for any common carrier subject to the act to regulate commerce to own, lease, operate, control, or have any interest in any competing carrier by water. Jurisdiction is conferred upon the commission to determine questions of fact as to competition, after full hearing, on the application of any railroad company or other carrier, and to extend beyond July 1, 1914, the time during which such ownership or operation of vessels plying elsewhere than through the Panama Canal may continue, when it is found to be in the interest of the public and is of advantage to the convenience and commerce of the people, and not in restraint of competition.

At the same time section 6 of the act was amended by adding

a new paragraph conferring upon the commission jurisdiction over transportation of property from point to point in the United States by rail and water, whether through the Panama Canal or otherwise, and not entirely within the limits of a single State, this jurisdiction, under certain conditions, including power to establish physical connection between lines of the rail carrier and the dock of the water carrier by directing the rail carrier to make such connection; to establish through routes and maximum joint rates over such rail and water lines, and to determine the conditions thereof; to establish proportional rates by rail to and from ports, and to determine to what traffic and in connection with what vessels and upon what terms and conditions such rates shall apply; and to require rail carriers entering into through routing arrangements with any water carrier to extend the privileges of such arrangements to other water carriers.

By the act approved March 1, 1913, amending the act to regulate commerce, the commission is directed to investigate, ascertain, and report the value of all the property owned or used by every common carrier subject to the provisions of the act.

The Commission has jurisdiction to enforce certain provisions of the act approved October 15, 1914, to supplement existing laws against unlawful restraints and monopolies in so far as such provisions relate to carriers subject to the act to regulate commerce. With certain exceptions, the act prohibits carriers from discriminating between purchasers in sales of commodities and from making leases or sales of commodities and from acquiring stock or capital of other corporations engaged in commerce, tending to substantially lessen competition or create a monopoly; makes it a felony for a president or other specified officers to misappropriate a carrier's funds; provides that after two years from the approval of the act no carrier shall have dealings in supplies or securities, or contract for construction or maintenance to the amount of more than \$50,000 in the aggregate in any one year, with another corporation or organization, when by reason of common officers or otherwise there exists a community of interest between the carrier and such other corporation or organization, except as a result of free competitive bidding under regulations to be prescribed by the commission. The commission is authorized to investigate violations of the act by carriers, and to require the guilty parties to cease therefrom; and its findings of fact in such investigations shall be conclusive when supported by testimony.

The act of February 11, 1903, provides that suits in equity brought under the act to regulate commerce, wherein the United States is complainant, may be expedited and given precedence over other suits, and that appeals from the circuit court lie only to the Supreme Court. The act of February 19, 1903, commonly called the Elkins law, prohibits rebating, allows proceedings in the courts by injunction to restrain departures from published rates, and provides that cases prosecuted under the direction of the Attorney General in the name of the commission shall be included within the expediting act of February 11, 1903.

Under the act of August 7, 1888, all Government-aided railroad and telegraph companies are required to file certain reports and contracts with the commission, and it is the commission's duty to decide questions relating to the interchange of business between such Government-aided telegraph company and any connecting telegraph company. The act provides penalties for failure to comply with the act or the orders of the commission.

The act of March 2, 1893, known as the "Safety Appliance

Act," provides that railroad cars used in interstate commerce must be equipped with automatic couplers, and drawbars of a standard height for freight cars, and have grab irons or handholds in the ends and sides of each car; and that locomotive engines used in moving interstate traffic shall be equipped with a power driving-wheel brake and appliances for operating the train-brake system. The act directs the commission to lodge with the proper district attorneys information of such violations as may come to its knowledge. The act of March 2, 1903, amended this act so as to make its provisions apply to Territories and the District of Columbia, to all cases when couplers of whatever design are brought together, and to all locomotives, cars, and other equipment of any railroad engaged in interstate traffic, except logging cars and cars used upon street railways; and provides for a minimum number of air-braked cars in trains.

By act of April 14, 1910, the safety-appliance acts were supplemented so as to require railroads to equip their cars with sill steps, hand brakes, ladders, running boards, and roof handholds, and the commission was authorized to designate the number, dimensions, location, and manner of application of appliances.

By act of May 6, 1910, the prior accident-reports law was repealed and a new statute passed giving more power to the commission as to investigating accidents, which is more comprehensive than the former law.

The act of March 4, 1907, makes it the duty of the Interstate Commerce Commission to enforce the provisions of the act wherein it is made unlawful to require or permit employees engaged in or connected with the movement of trains to be on duty more than a specified number of hours in any 24.

The act of May 30, 1908, directs the Interstate Commerce Commission to make regulations for the safe transportation of explosives by common carriers engaged in interstate commerce. A penalty is provided for violations of such regulations.

The act of May 30, 1908, makes it the duty of the Interstate Commerce Commission to enforce the provisions of the act wherein it is provided that after a certain date no locomotive shall be used in moving interstate or foreign traffic, etc., not equipped with an ash pan which can be emptied without requiring a man to go under such locomotive. A penalty is provided for violations of this act.

The act of February 17, 1911, confers jurisdiction upon the commission to enforce certain provisions compelling railroad companies to equip their locomotives with safe and suitable boilers and appurtenances thereto.

The urgent deficiency appropriation act, approved October 22, 1913, contains an appropriation of \$25,000 to enable the commission to investigate and report in regard to block signals and appliances for the automatic control of railway trains and appliances or systems intended to promote the safety of railway operation, including experimental tests of such systems and appliances as shall be furnished, in completed shape, to the commission for investigation and test, free of cost to the Government, in accordance with the provisions of joint resolution approved June 30, 1906, and sundry civil appropriation act approved May 27, 1908. Provision is made in the sundry civil appropriation act approved August 1, 1914, for continuing the investigation and testing of these systems and appliances. The act of October 22, 1913, also provided that the Commerce Court should be abolished after December 31, 1913, and that the jurisdiction vested in said court under act approved June 18, 1910, be transferred to and vested in the several district courts of the United States.

THE CHAMBER OF COMMERCE OF THE UNITED STATES OF AMERICA

The Chamber of Commerce of the United States of America was organized at the National Commercial Conference called by the President of the United States and held at Washington, D. C., April 22-23, 1912.

PURPOSES.—To encourage and promote the organization of associations of business men in all parts of the country. To study the work of existing organizations and their value to their representative trades and communities, and to clear the information thus acquired for the benefit of all organizations desiring to increase their efficiency. To advocate the standardization of association methods and of association effort, and to urge the adoption of those standards which have been found most effective in so far as they may be applicable to local or trade conditions. To study the work performed by all govern-

ment bureaus in any way related to the commerce of the country, to encourage and support appropriation measures for their further development and to utilize the data which they gather by directing it into the channels to which it is immediately applicable. To carefully analyze all statistics with regard to the production and distribution of our manufactures at home and abroad; to be watchful of every influence calculated to retard our commercial development, and to become a source of information with respect to new opportunities for trade expansion, especially in foreign markets.

When debatable policies affecting our national commerce are advocated by the federal authorities, there should be a recognized organization capable of expressing the business opinion of the entire country available for conference, alike

to the executive and legislative branches of the government.

It is the purpose of the Chamber of Commerce of the United States of America to act in this capacity—not to originate legislation, nor to be unnecessarily critical of legislation proposed by others, but rather to assume that the national government desires to act in harmony with the commercial interests of the country, and will accept our co-operation in an endeavor to make all business legislation constructive.

ORGANIZATION MEMBERSHIP.—The Chamber of Commerce of the United States of America is a federation of the commercial organizations. Every commercial or manufacturers' association not organized for private purposes shall be eligible for membership in the Chamber. Such associations shall be of two classes: first, local and state commercial or business organizations whose chief purpose is the development of the commercial and industrial interests of a single state, city, or locality; second, local, state, interstate or national organizations, whose membership is confined to one trade or group of trades.

REPRESENTATION.—Each organization member of the Chamber of Commerce of the United States of America, shall be entitled to one delegate and one vote for the first twenty-five members, and one delegate and one vote for each additional two hundred members in excess of twenty-five, but no member shall be entitled to more than ten delegates and ten votes. Organizations having less than twenty-five members may be admitted to membership, if in the judgment of the Board of Directors their importance would justify their admission, and these shall be entitled to one delegate and one vote.

The organization membership at the present time consists of over 650 commercial and trade organizations representing over

275,000 corporations, firms, and individuals, among which every state in the Union is represented, as well as Hawaii, Alaska, Porto Rico, the Philippines, and the American Chambers of Commerce in foreign countries.

INDIVIDUAL MEMBERSHIP.—Persons, firms, or corporations who are members in good standing of any organization admitted to the Chamber are eligible for election as individual members. Individual members receive the regular publications of the Chamber and they may avail themselves of the facilities of the National Headquarters; may attend all regular and special meetings of the Chamber, and subject to the rules of such meetings, may have the privilege of the floor, but they are not entitled to vote except as duly accredited delegates of organization members.

The individual membership is limited to 5,000 and at the present time consists of more than 4,300 individuals, firms, or corporations representing merchants, manufacturers, lawyers, bankers, engineers, railroad officials, and other business men in all parts of the country.

SERVICE.—Among the service features may be noted a division of information, the publication of weekly legislative bulletins during sessions of Congress in which are given the digests of current and national legislation, business bulletins giving members notice of all government activities affecting the business of the country, announcements regarding such matters as the Interstate Commerce Commission, the Income Tax, the Federal Reserve Board, etc. Another feature is the publication of a monthly organ entitled "The Nation's Business," containing information regarding national questions affecting commerce and industry. The national headquarters are at Washington, D. C.

THE BOY SCOUTS OF AMERICA

The Boy Scouts of America was incorporated under the laws of the District of Columbia Feb. 8, 1910. There are now Boy Scouts in every state in the Union, and in nearly every town with a population of over 4,000. The organization has a membership of over 300,000 boys. New York has the largest enrolment, Pennsylvania and New Jersey ranking next. National headquarters are at 200 Fifth Avenue, New York. President Wilson is honorary president of the Boy Scouts of America, and William H. Taft and Theodore Roosevelt are honorary vice-presidents. Colin H. Livingstone, Washington, D. C., is president of the National Council and Executive Board.

The Boy Scouts provide teaching and guidance for boys from 12 to 18 years of age. Not military in character, the organization aims at teaching loyalty, patriotism, and chivalry, and advocates universal peace. Service, not warfare, is the underlying principle. The motto is, "Be prepared." On becoming a member a boy promises to do his best to do his duty to God and his country, to obey the scout law, to help other people at all times, to keep physically strong, mentally awake, and morally straight. The scout law requires that a boy be trustworthy, loyal, helpful, friendly, courteous, kind, obedient, cheerful, thrifty, brave, clean, and reverent. The scout cannot accept tips for aiding those in need of help. There are three classes of scouts, the "tenderfoot," second-class scout, and first-class scout. To enter each class a boy must know how to do certain things, among which are tying knots, giving first aid, signalling, building a fire in the open, cooking, swimming, using the hatchet and axe, earning and depositing money in the bank; and he must know the composition and history of the flag and the customary form of showing the respect due to it. A group of eight or more boys may organize by application to the local or national scout headquarters. Eight boys make a patrol, one being the patrol leader and another the assistant patrol leader. Three or more patrols make a troop, and each troop must have a man at least 21 years old as scout master. The annual membership and registration fee is 25c. A uniform is not necessary, but a scout usually wants one, and is advised by the organization to earn it, together with any other equipment he may desire.

The movement was started originally in England, by General Sir Robert Baden-Powell. It has spread to twenty-seven countries, and has a membership of about 2,000,000. In the five years since the organization was incorporated here, the Boy Scouts have made a record of valued service.

During the summer Columbia University provides in Teachers College two courses in scouting, one for teachers and social workers, the other for scout masters and scout executives; and a model camp is maintained by the New York organization near

Van Cortlandt Park. Training courses have also been given at Harvard University, Amherst Agricultural College, Carnegie Institute, and at the Universities of Chicago, Virginia, Texas, Wisconsin, California, Minnesota, Pittsburg, Cornell, Iowa State and Boston.

UNITED STATES BOY SCOUTS

The United States Boy Scouts were formerly the American Boy Scouts, organized April 8, 1909. It is a national organization, governed along the same lines as the United States Army and Navy, and aims to build up a moral and national defense. Boys from 8 to 12 years of age may become Junior Scouts, and boys from 12 to 18 may become Senior Scouts. A patrol consists of seven scouts, under command of a patrol leader or corporal. Three patrols make a troop, commanded by an assistant scout master with the rank of captain. Two or more troops make a battalion, commanded by a scout master with the rank of major. The organization is non-sectarian, and there are no dues, fees or charges. The national headquarters are at 68 William Street, New York.

CAMP FIRE GIRLS

An organization of girls under twelve, each group being under the guardianship of an older woman. There is also an auxiliary organization of girls over six, called the Camp Fire Blue Birds.

Camp Fire is a society with the object of doing for girls what the Boy Scouts organization does for boys. The idea is to get together the ablest girls and women, and train them in team work, which will enable and incline them to give woman's service to the community, and promote happy social life. It is an army of girls, rather than a mission to them. "To make the spirit of the home dominate the entire community" is the object. Hence, the ranks are recruited from those who have the ability to do and to help, rather than from those who need help. Members of the Camp Fire desire to seek beauty, give service, pursue knowledge, be trustworthy, hold on to health, glorify work, and be happy. Camp Fire uses beautiful ceremonies, bases rank and honors on personal attainment, has attractive ceremonial customs, honor beads and decorations. There are more than three hundred "honors", grouped under the heads: Health Craft, Camp Craft, Nature Lore, Home Craft, Hand Craft, Business, and Patriotism.

Camp Fire was first publicly announced March 17th, 1912, although the spring of 1911 saw the real beginning of the society. The total membership is now over 40,565 girls and over 4,000 guardians. Headquarters are at 461-4th Avenue, New York, and the president is Luther H. Gulick, M.D.

RULES OF PARLIAMENTARY PROCEDURE

WITH PLAIN ANSWERS TO MORE THAN TWO HUNDRED PARLIAMENTARY QUERIES

From the Authorized Revision of Cushing's Manual of Parliamentary Practice, by permission of the publishers, E. P. Dutton & Co., 681 Fifth Ave., New York. For more detailed information consult this manual.

NOTE.—Questions in this column stand in the order of rank.

NOTE.—Questions in this column have no fixed order of rank.

PRIVILEGED QUESTIONS

TAKE PRECEDENCE OF ALL OTHER MOTIONS

To Fix the Time for Reassembling.

(To Adjourn)=†

To Take a Recess=

QUESTIONS OF PRIVILEGE ††

(Orders of the Day)=*†

SUBSIDIARY QUESTIONS

YIELD TO THE ABOVE UNLESS APPLIED TO THEM

(Question of Consideration)*†

(To Lay on the Table)=

(The Previous Question)=

POSTPONE TO A CERTAIN DAY=

TO COMMIT, OR RECOMMEND=

(AMENDMENT OF AN AMENDMENT)

AMENDMENT OF THE MAIN QUESTION

AMENDMENT REMOVING MAIN QUESTION

(POSTPONE INDEFINITELY)

INCIDENTAL QUESTIONS

SUPERSEDE QUESTIONS GIVING RISE TO THEM

(Questions of Order—entitled to precedence)*†

(APPEAL FROM DECISION OF CHAIR) ††

(Questions as to Reading Papers)

(Leave to Withdraw a Motion)

(To Suspend the Rules) †

(To Make a Special Order)

To Determine Mode of Procedure

To Divide the Question

(Nominations and Filling Blanks)*

SUPPLEMENTARY QUESTIONS

EXCEPT RECONSIDER, THESE HAVE NO PRIVILEGE

(To Take from the Table)=

(TO DISCHARGE COMMITTEE) ††

(Reconsider an Undebatable Question) †

(RECONSIDER DEBATABLE QUESTION) ††

TO RESCIND OR REPEAL ††

Explanation of Reference Marks

SMALL CAPITALS—A QUESTION DEBATABLE IN ITSELF.

LARGE CAPITALS—OPENS THE WHOLE QUESTION.

All questions thus PRINTED IN CAPITALS, large or small, are amenable to the Previous Question to close debate when ordered pending an amendment, the Previous Question closes debate on both amendment and main question.

* Need not be seconded.

† May interrupt a speaker.

‡ Cannot be reconsidered.

= Renewable after a proper interval.

() Cannot be amended.

|| May be laid on the table.

Italics—a two-thirds vote required.

THE AMERICAN HALL OF FAME

In March, 1900, Chancellor MacCracken, of New York University, announced that \$250,000 had been given that institution for a Hall of Fame of Great Americans. The conditions were that 50 names might be chosen in 1900 and 5 more each succeeding 5 years through the twentieth century. One hundred electors from all of the 45 States were asked to make nominations and to indicate each one, his choice of 50 names. On Oct. 1, 1900, it appeared that 29 names had received a majority of 51 votes. These were approved by the Senate (which has the power of veto), the number of votes for each being as follows: George Washington, 97; Abraham Lincoln, 96; Daniel Webster, 96; Benjamin Franklin, 94; Ulysses S. Grant, 93; John Marshall, 91; Thomas Jefferson, 91; Ralph Waldo Emerson, 87; Robert Fulton, 86; Henry W. Longfellow, 85; Washington Irving, 83; Jonathan Edwards, 82; Samuel F. B. Morse, 82; David G. Farragut, 79; Henry Clay, 74; George Peabody, 74; Nathaniel Hawthorne, 73; Peter Cooper, 69; Robert E. Lee, 68; Eli Whitney, 69; John J. Audubon, 67; Horace Mann, 67; James Kent, 65; Henry Ward Beecher, 64; Joseph Story, 64; John Adams, 62; Wm. E. Channing, 58; Gilbert Stuart, 52; Asa Gray, 51.

In 1904 the constitution of the Hall was amended to provide for choosing separately ten names of famous American women in 1905, and two in each succeeding quinquennium; also six names of foreign-born Americans, and one at each succeeding election. Those chosen in the latter class are printed in capitals.

In October, 1905, the Senate received the ballots of 95 electors, of whom only 85 undertook to consider the names of women. A majority of 51 was demanded, but in the case of the names of women a majority of only 47. The following persons were found to be duly chosen: John Quincy Adams, 60; James Russell Lowell, 59; William T. Sherman, 58; James Madison, 56; John G. Whittier, 53; ALEX. HAMILTON, 88; LOUIS AGASSIZ, 83; JOHN PAUL JONES, 55; Mary Lyon, 59; Emma Willard, 50; Maria Mitchell, 48.

In October, 1910, the Senate received the votes of 97 electors; 51 votes were required for choice; 11 names were added, as follows: Harriet Beecher Stowe, 74; Oliver Wendell Holmes, 69; Edgar Allan Poe, 69; ROGER WILLIAMS, 64; James Fenimore Cooper, 62; Phillips Brooks, 60; William Cullen Bryant, 59; Frances E. Willard, 56; Andrew Jackson, 53; George Bancroft, 53; and John Lothrop Motley, 51.

On October 6, 1915, from a choice of 212 nominees, 179 men and 33 women, 7 names were added as follows: Francis Parkman, historian, 68; Mark Hopkins, educator, 69; Elias Howe, inventor of sewing machine, 61; James H. Brown, scientist, 56;

Charlotte Cushman, actress, 53; Rufus Choate, jurist, 52; Daniel Boone, pioneer, 52 votes.

POLITICAL ASSASSINATIONS SINCE 1865

Following is a list of rulers and ministers assassinated since 1865: Abraham Lincoln, President of the United States, April 14, 1865.

Michael, Prince of Serbia, June 10, 1868.

Prim, Marshal of Spain, December 28, 1870.

Richard, Earl of Mayo, Governor-General of India, February 8, 1872.

Abdul Aziz, Sultan of Turkey, June 4, 1876.

Alexander II. of Russia, March 13, 1881.

James A. Garfield, President of the United States, July 2, 1881.

Marie Francois Sadi-Carnot, President of France, June 24, 1894.

Stanislaus Stambouloff, Premier of Bulgaria, July 25, 1895.

Nasr-Ed-Din, Shah of Persia, May 1, 1896.

Canovas Del Castillo, Prime Minister of Spain, August 8, 1897.

Juan Idiarte Borda, President of Uruguay, August 25, 1897.

Jose Maria Reyna Barrios, President of Guatemala, February 18, 1898.

Empress Elizabeth of Austria, September 10, 1898.

Humbert, King of Italy, July 29, 1900.

William McKinley, President of the United States, September 6, 1901.

Alexander, King of Serbia, June 11, 1903.

Draga, Queen of Serbia, June 11, 1903.

Bobrikoff, Governor-General of Finland, June 16, 1904.

Von Plehve, Russian Minister of the Interior, July 28, 1904.

Carlos, King of Portugal, February 1, 1908.

Louis Philippe, Prince Royal of Portugal, February 1, 1908.

Luis, Crown Prince of Portugal, February 1, 1908.

Sergius, Grand Duke of Russia, March 13, 1908.

Marquis Ito of Japan, October 26, 1909.

Peter Arcadowitch Stolypin, Premier of Russia, September 14, 1911.

Jose Canalejas, Prime Minister of Spain, November 12, 1912.

Nazim Pasha, Turkish Minister of War, January 23, 1913.

Francisco I. Madero, President of Mexico, February 23, 1913.

Jose Pino Suarez, Vice-President of Mexico, February 23, 1913.

George, King of Greece, March 18, 1913.

Archduke Francis Ferdinand, heir to Austrian Throne, June 28, 1914.

PATENTS AND TRADE-MARKS

PATENTS

INVENTIONS PATENTABLE.—Any person who has invented or discovered any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvements thereof, not known or used by others in this country before his invention or discovery thereof, and not patented or described in any printed publication in this or any foreign country, before his invention or discovery thereof, for more than two years prior to his application, and not in public use or on sale in this country for more than two years prior to his application, unless the same is proved to have been abandoned, may, upon payment of the fees required by law, and other due proceedings had, obtain a patent.

APPLICATION.—Application is to be made in writing, to the Commissioner of Patents, giving a description of the article, and of the manner and process of making, constructing, compounding, and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, compound, and use the same; and in case of a machine, he shall explain the principle thereof, and the best mode in which he has contemplated applying that principle, so as to distinguish it from other inventions; and he shall particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery. The specification and claim shall be signed by the inventor and attested by two witnesses.

OATH.—The applicant shall make oath that he does verily believe himself to be the original and first inventor or discoverer of the art, machine, manufacture, composition or improvement for which he solicits a patent; that he does not know and does not believe that the same was ever before known or used; and shall state of what country he is a citizen.

PATENTS FOR DESIGNS AUTHORIZED.—Any person who has invented any new, original, and ornamental design for an article of manufacture, not known or used by others in this country before his invention thereof, and not patented or described in any printed publication in this or any foreign country before his invention thereof, or more than two years prior to his application, and not in public use or on sale in this country for more than two years prior to his application, unless the same is proved to have been abandoned, may, upon payment of the fees and other due proceedings had, the same as in cases of invention or discoveries, obtain a patent therefor.

DRAWINGS.—Drawings must be made with India ink alone, on pure white paper, the thickness of three sheets of Bristol board, and containing a calendared and smooth surface. All drawings must be made with pen only and every line and letter, signature and shading must be absolutely black. The size of the sheet must be exactly 10x15 inches, and there must be an inch margin on each side, leaving the "sight" exactly 8x13 inches. When the view is longer than the width of the sheet, it may be turned on its side, while the signature of the proprietor of the trade mark must be placed at the lower right hand corner and the signature of the witnesses at the lower left hand corner, but, in no instance, shall they encroach upon the drawing. Drawings must be packed flat or rolled for transmission to the Patent Office—not folded.

FOREIGN PATENTS.—No person otherwise entitled thereto shall be debarred from receiving a patent for his invention or discovery, nor shall any patent be declared invalid by reason of its having been first patented or caused to be patented by the inventor or his legal representatives or assigns in a foreign country, unless the application for said foreign patent was filed more than twelve months, in cases within the provisions of section forty-eight hundred and eighty-six of the Revised Statutes, and four months in cases of designs, prior to the filing of the application in this country, in which case no patent shall be granted in this country.

CONTENTS AND DURATION.—Every patent shall contain a short title or description of the invention or discovery, correctly indicating its nature and design, and a grant to the patentee, his heirs or assigns, for the term of *seventeen years*, of the exclusive right to use the invention throughout the United States, referring to the specification for the particulars thereof.

FEES.—Filing each original application for a patent, except in design cases, \$15.

Issuing each original patent, except in design cases, \$20.

In design cases: For three years and six months, \$10; seven years, \$15; for fourteen years, \$30.

Every application for the reissue of a patent, \$30.

Filing each disclaimer, \$10.

An appeal for the first time from the primary examiners to the examiners-in-chief, \$10.

Every appeal from the examiners-in-chief to the Commissioner, \$20.

Copies of records in the Patent Office, ten cents per hundred words; if certified twenty-five cents additional for each certification.

For recording every assignment, power of attorney, or other paper, of three hundred words or under, \$1; of over three hundred and under one thousand words, \$2; and for each additional thousand words or fraction thereof, \$1.

Printed copies of specifications and drawings of United States patents are furnished for five cents each; certified copies of such drawings and specifications, twenty-five cents additional for each certification.

For photographic copies of drawings, twenty-five cents each.

The Patent Office advises applicants to avoid doing business with attorneys who advertise the possession of unusual facilities or obtaining patents. A model should not be filed unless asked or by the office.

TRADE-MARKS

WHO MAY REGISTER.—A trade-mark may be registered by any person, firm, corporation, or association domiciled within the territory of the United States, or residing in or located in any foreign country which, by treaty, convention, or law, affords similar privileges to the citizens of the United States, and who is the owner of such trade-mark, and uses the same in commerce with foreign nations, or among the several States, or with Indian tribes, upon payment of the fee required by law and other due proceedings had.

APPLICATION.—An application for the registration of a trade-mark must be made to the Commissioner of Patents and must be signed by the applicant. The complete application comprises: (1) A petition, requesting registration, signed by the applicant. (2) A statement specifying the name, domicile, location, and citizenship of the party applying, and if the applicant be a corporation or association, the State or nation under the laws of which organized; the class of merchandise (according to the official classification), and the particular description of goods comprized in such class upon which the trade-mark has actually been used; a statement of the mode in which the same is applied and affixed to the goods, and the length of time during which the trade-mark has been used upon the goods specified. A description of the trade-mark itself shall be included, if desired by the applicant or required by the Commissioner, provided such description is of a character to meet the approval of the Commissioner. (3) A drawing of the trade-mark, signed by the applicant, or his attorney, which shall be a facsimile of the same as actually used upon the goods. (4) Five specimens or facsimiles of the trade-mark as actually used upon the goods.

WHAT MAY BE REGISTERED.—No trade-mark will be registered unless it shall be made to appear that the same is used as such by said owner in commerce among the several States, or between the United States and some foreign nation or Indian tribe; no trade-mark will be registered which consists of, or comprizes the flag or coat of arms or other insignia of the United States, or any simulation thereof, or of any State or municipality, or of any foreign nation, or which consists of or comprizes any design or picture that has been adopted by any fraternal society as its emblem, or of any name, distinguishing mark, character, emblem, colors, flag, or banner adopted by any institution, organization, club, or society which was incorporated in any state in the United States prior to the date of the adoption and use by the applicant; or which trade-mark is identical with a registered or known trade-mark owned and in use by another, and appropriated to merchandise of the same descriptive properties, or which so nearly resembles a registered or known trade-mark owned and in use by another, and appropriated to merchandise of the same descriptive properties as to

TRADE-MARKS—(Continued)

be likely to cause confusion or mistake in the mind of the public, or which consists merely in the name of an individual, firm, corporation, or association, not written, printed, impressed, or woven in some particular or distinctive manner or in association with a portrait of the individual, or merely in words or devices which are descriptive of the goods with which they are used, or of the character or quality of such goods, or merely a geographical name or term: no portrait of a living individual will

be registered as a trade-mark, except by the consent of such individual evidenced by an instrument in writing; and no trade-mark will be registered which is used in unlawful business, or upon any article injurious in itself, or which has been used with the design of deceiving the public in the purchase of merchandise, or which has been abandoned. (In an act approved Feb. 18, 1911, a provision was made permitting the name or part of the name of the applicant to serve.)

A DECADE OF PATENT OFFICE BUSINESS

Year	Applications	Caveats filed	Patents and reissues	Cash received	Cash expended	Surplus
1904.....	52,143	1,808	30,934	1,657,26.53	\$1,476,000.38	\$181,326.15
1905.....	54,971	1,896	30,399	1,806,758.14	1,479,633.22	327,124.92
1906.....	56,482	1,885	31,965	1,790,921.38	1,554,891.20	236,030.18
1907.....	58,762	1,967	36,620	1,910,618.14	1,631,458.36	279,159.78
1908.....	61,475	2,110	33,682	1,896,847.67	1,712,303.42	184,544.25
1909.....	65,839	1,948	37,421	2,042,828.14	1,955,151.14	87,677.00
1910.....	64,629	970	35,930	2,025,536.69	2,005,711.94	19,824.75
1911.....	67,370	(1)	34,084	2,019,388.03	1,953,689.91	65,698.12
1912.....	70,976	.....	3,731	2,101,199.09	2,022,066.11	79,133.99
1913.....	70,367	.....	35,788	2,084,417.79	1,947,383.28	137,034.51
1914.....	67,774	.....	41,850	2,233,932.82	(2)	(2)

¹ No caveats filed after June 30, 1910; law repealed.

² Not reported.

DUST PREVENTION

(Source: Bulletin 27, State of Ohio Highway Department.)

"Dust is an annoyance to pedestrians and vehicular passengers; it soils clothes and vehicles, and the curtains, carpets and furniture of residents along highways. By forming a heavy coating on the foliage of plants it injures the crops. It carries disease germs, and by obscuring the traveled way it is sometimes a source of danger. These facts justify us in seeking a means of reducing the evil to a minimum," says a bulletin issued by the State of Ohio Highway Department.

Dusty thoroughfares are due to three causes: (1) foreign matter thrown into the roads; (2) actual wear of the road material; (3) improper road construction.

Under the first heading may be included objects dropped from vehicles, animal excrement, dirt tracked from muddy fields or crossroads, ashes, and sweepings from buildings and yards. For the general good, individuals should avoid throwing ashes and sweepings into the roadway, where they will be scattered and add to the dust. Where a muddy road crosses a paved highway it is well to surface the dirt road with broken stone for some distance back of the intersection, or with cobblestones 4" to 8" in diameter. This is rough traveling, and will cause the dirt to drop from the wheels before vehicles reach the cleaner pavement.

Dust is also caused by the wear of wheels and hoofs, aided by disintegration of the surface caused by wind, frost and rain. Frequent sweeping or dragging of the road will keep it smooth and comparatively free from dust so generated. Furthermore, elimination of ruts will secure a better distribution of traffic, and if the traffic is distributed over twice the width of road generally used, only half the thickness of dust should be produced. Traveling in a single track causes ruts, an abnormal amount of dust, and the destruction of the road. Dragging should be done after a wet period, because then the surface will form a smooth crust. The surface should never be swept or dragged when dry.

Dust may have its origin in an improper road foundation. For instance, if a brick pavement is laid with the joints filled with sand or other material which will not hold the bricks rigid, mud will work through after rainy periods and during thaws in spring, and cause considerable dust when dried.

The importance of proper road construction cannot be too greatly emphasized. Granted a well made road, thorough and systematic cleaning or dragging will keep down the dust.

When the mud begins to dry in the spring is a good time to clean a gravel or macadam road. All mud and debris should

be scraped into piles and *taken away*; gutter and ditch cleanings should never be thrown back onto the traveled surface where it will be ground up into dust.

The only way to prevent dust on brick, concrete, wood or bituminous pavements is to remove the refuse by sweeping during the day, supplemented by flushing with water at night. The sweeping should be preceded by sprinkling to prevent dust clouds.

Part of the expense of cleaning may be met by selling the sweepings for fertilizer. However, sweepings from oiled roads, and from streets having heavy automobile traffic, should not be used for this purpose, because the bad effect of the oils and grease counteracts the beneficial effect of the fertilizer.

A road should be so made that the surface is as suitable to drive over in one place as in another. Roads should be built with a minimum crown. The flatter the crown the less tendency there is to concentrate traffic in the center of the road. Wide roads are best, because the wider the paved part, the more traffic will tend to distribute itself over the surface.

Having exhausted all the means of preventing excessive dust, by proper road construction, even distribution of wear, and cleanliness, there remains what may be termed a normal amount of dust. This can be allayed and in some cases prevented by the use of proper palliatives. Before applying them, however, the roads should be clean and absolutely free from holes and ruts. In general it is better to give the middle of the road a heavier application than the sides. These temporary layers of dust include water, salt solutions, oil and tar emulsions, the lighter oils and tars, and various chemical compounds. More permanent preventives include the heavier tars and oils. Tars and oils should only be applied to warm, dry surfaces.

POSTER STAMPS

The origin of the poster stamp may be traced to Germany where certain decorative stamps were used about 20 years ago. The first exhibition of poster stamps was held in 1909. The popularity of the idea seems established firmly not only among collectors, but as a useful method of advertising and for philanthropic purposes. Business houses are adopting the notion, and some of the cleverest artists of the day have designed poster stamps for them. They are also being employed for propaganda purposes by societies. Various War Funds have benefited by the sale of special stamps.

BAGGAGE OF INCOMING PASSENGERS

Paragraph 642, appearing in the free list of the present tariff act, reads as follows:

642. Wearing apparel, articles of personal adornment, toilet articles, and similar personal effects of persons arriving in the United States; but this exemption shall include only such articles as were actually owned by them and in their possession abroad at the time of or prior to their departure from a foreign country, and as are necessary and appropriate for the wear and use of such persons and are intended for such wear and use, and shall not be held to apply to merchandise or articles intended for other persons or for sale: *Provided*, That in case of residents of the United States returning from abroad all wearing apparel, personal and household effects taken by them out of the United States to foreign countries shall be admitted free of duty, without regard to their value, upon their identity being established under appropriate rules and regulations to be prescribed by the Secretary of the Treasury: *Provided further*, That up to but not exceeding \$100 in value of articles acquired abroad by such residents of the United States for personal or household use or as souvenirs or curios, but not bought on commission or intended for sale, shall be admitted free of duty.

BAGGAGE DECLARATIONS

The law requires that every person entering the United States shall make a declaration and entry of personal baggage. The senior member of a family present as a passenger may, however, declare for the entire family.

A failure to declare articles acquired abroad and brought in as baggage renders the articles subject to forfeiture and the passengers liable to criminal prosecution. (Sections 2802 and 3082, R. S.)

Returning residents of the United States should use the form of declaration printed in black; nonresidents should use the form printed in red.

The exact number of pieces of baggage accompanying a passenger must be stated in the declaration, including trunks, valises, boxes, hand bags, and packages or bundles of every kind. Forms of baggage declarations will be furnished passengers by the steamship officers. The declaration should be prepared and signed at least one day before the expected arrival of the vessel. Declarations spoiled in preparation should not be destroyed, but should be turned over to the purser, who will furnish a new blank.

When the declaration has been prepared and signed, the coupon at the bottom of the form must be detached and retained by the passenger and the declaration delivered to the ship's officer designated to receive the same. After all the baggage and effects of the passenger have been landed, the coupon which has been retained must be presented at the inspector's desk and an inspector will then be detailed to examine the baggage.

Passengers must acknowledge in person, on the pier, their signatures to the declarations.

RETURNING RESIDENTS OF THE UNITED STATES

Returning residents of the United States must declare all articles acquired abroad, in their baggage or on their persons, whether by purchase, by gift, or otherwise, and whether dutiable or free of duty. Exemption, however, will be allowed by customs officers of articles aggregating not over \$100 in value, if suitable for personal or household use or as souvenirs or curios, and whether intended for the personal use of the passengers or as gifts or presents to others, provided the articles are not bought on commission for another person nor intended for sale. Articles so exempt from duty must, nevertheless, be declared.

Articles belonging to one passenger can not be included in the exemption of another.

Use does not exempt from duty wearing apparel or other articles obtained abroad. Such articles which have been used abroad may, however, be specifically noted on the declaration and due allowance will be made by the appraising officers for depreciation through wear and use and duties charged upon the articles at their value in their condition as imported.

Passengers must not deduct the \$100 exemption in making out their declarations. Such deductions will be made by customs officers on the pier.

All wearing apparel, personal and household effects taken out of the United States by residents shall be admitted free of duty

without regard to their value upon their identity being established. If remodeled, repaired, or improved abroad the cost of such remodeling, repairing, or improvement must be declared, and receipted bills for such alterations should be presented. The cost of such repairs is subject to duty, but may be included by customs officers within the \$100 exemption. If the cost or value of the repairs be not declared, the articles will be subject to duty upon their entire value.

Citizens of the United States or persons who have at any time resided in this country shall be deemed to be residents of the United States, unless they shall have abandoned their residence in this country and acquired an actual bona fide residence in a foreign country. Such citizens or former residents who declare as non-residents must present satisfactory evidence to the customs officers upon the pier that they have given up their residence in the United States and have become bona fide residents of a foreign country.

The residence of a wife follows that of the husband, and the residence of a minor child follows that of its parents.

The examination of baggage will be facilitated and difficulties avoided if receipted bills for foreign purchases be presented, and if all articles acquired abroad be packed separately in one or more trunks.

NONRESIDENTS OF THE UNITED STATES

Nonresidents of the United States must declare all articles in their baggage or on their persons which do not constitute wearing apparel, articles of personal adornment, toilet articles, or similar personal effects, whether intended for their personal use or for others. They must also declare all articles of wearing apparel, jewelry, and other articles of personal adornment, toilet articles, and similar effects when not owned by them or when intended for other persons or for sale.

HOUSEHOLD EFFECTS

Household effects, such as furniture, table linen, bed linen, tableware, etc., imported as baggage must be declared. If shown to the satisfaction of the customs officers to have been actually owned and used abroad by the passenger not less than one year and not intended for any other person nor for sale, such effects will be admitted free of duty. If not so owned and used abroad, duties must be paid thereon, unless included in the \$100 exemption allowed returning residents.

CIGARS AND CIGARETTES

Each passenger over 18 years of age may bring in free of duty 50 cigars or 300 cigarettes, or smoking tobacco not exceeding 3 pounds, if for the bona fide use of such passenger. These articles must be declared, but will be passed free by customs officers in addition to the \$100 exemption.

CONTESTED VALUATION

Passengers dissatisfied with values placed upon dutiable articles by the customs officers on the pier may demand a reexamination. Application therefor should be made to the officers in charge immediately. If, for any reason, this course is impracticable, the packages containing the articles should be left in customs custody and application for reappraisal made to the collector of customs in writing within 10 days after the original appraisal. No request for reappraisal can be entertained after the articles have been removed from customs custody.

Examination of any baggage may be postponed if the passenger requests the officer taking his declaration to have the baggage sent to the appraiser's stores.

Currency or certified checks only can be accepted in payment of duties, but upon request baggage will be retained on the pier for 24 hours to enable the owner to secure currency or certified checks.

The offering of gratuities or bribes to customs officers is a violation of law. Customs officers who accept gratuities or bribes will be dismissed from the service, and all parties concerned are liable to criminal prosecution.

Discourtesy or incivility on the part of customs officers should be reported to the collector at the customhouse, to the deputy collector or deputy surveyor at the pier, or to the Secretary of

BAGGAGE OF INCOMING PASSENGERS—(Continued)

the Treasury. Passengers should not, however, deem customs officers discourteous merely because such officers examine baggage thoroughly or appraise articles at a value different from that stated in the passenger's declaration.

BAGGAGE FOR TRANSPORTATION IN BOND

Baggage containing dutiable articles may be forwarded in bond to any other port of entry upon good reason therefor being shown.

Passengers desiring to have such baggage forwarded in bond should so indicate on their declarations, and also make a request therefor upon the inspector at the time he is assigned to the examination of their baggage. Similar action should be taken when it is desired to have baggage forwarded to another country in transit through the United States.

SEALSKIN GARMENTS

An act of Congress of 1897, as amended in 1912, expressly forbids the importation into the United States of garments made in whole or in part of the skins of seals taken in the waters of the

Pacific Ocean. Unless the owner is able to establish to the satisfaction of the collector that the garments are not prohibited by said act, they can not be admitted.

AIGRETTES AND OTHER PLUMAGE

Paragraph 347 of the present tariff act contains the following proviso:

The importation of aigrettes, egret plumes, or so-called osprey plumes, and the feathers, quills, heads, wings, tails, skins, or parts of skins, of wild birds, either raw or manufactured, and not for scientific or educational purposes, is hereby prohibited; but this provision shall not apply to the feathers or plumes of ostriches, or to the feathers or plumes of domestic fowls of any kind.

Any of the above-described prohibited articles will be excluded from entry when brought in by passengers as trimmings on hats or other articles of wearing apparel, and will be confiscated whether found in the baggage or on the person. In cases where there has been no willful intent to violate the law, such prohibited articles may be exported to a foreign country.

IMMIGRATION LEGISLATION

The question of whether the illiteracy test should be applied to immigrants entering this country, has been before Congress for a number of months. Those who believe it should, reason that we are letting in too many immigrants of low standard; that they are a drain on our resources. The negative believes that we can not draw any hard and fast rule regarding an illiteracy test, arguing that some of our very best foreign citizens entered this country as young men unable to read and write.

On February 15, 1914 the House of Representatives passed an Immigration Act incorporating an illiteracy test. The part of this bill having reference to such a test is as follows:

"That after four months from the approval of this Act, in addition to the aliens who are by law now excluded from admission into the United States, the following persons shall also be excluded from admission thereto, to wit:

All aliens over sixteen years of age, physically capable of reading, who can not read the English language, or some other language or dialect, including Hebrew or Yiddish; persons who can not become eligible, under existing law, to become citizens of the United States, by naturalization, unless otherwise provided for by existing treaties or agreements as passports, or by treaties, conventions, or agreements that may hereafter be entered into. The provision next foregoing, however, shall not apply to persons of the following stations or occupations: Government officers, ministers or religious teachers, missionaries, lawyers, physicians, chemists, civil engineers, teachers, students, authors, merchants, and travelers for curiosity or pleasure, nor to their legal wives or their children under sixteen years of age who shall accompany them or who subsequently may apply for admission to the United States, but such persons or their legal wives or any alien may designate the particular language or dialect in which he desires the examination to be made, and shall be required to read the words printed on the slip in such language or dialect. That the following classes of persons shall be exempt from the operation of the illiteracy test, to wit: All aliens who shall prove to the satisfaction of the proper immigration officer or to the Secretary of Labor that they emigrated from the country of which they were last permanent residents solely for the purpose of escaping from religious persecution; all aliens who have been lawfully admitted to the United States and who have resided therein continu-

ously for five years, and who have in accordance with the law declared their intention of becoming citizens of the United States and who return to the United States within six months from the date of their departure therefrom; all aliens in transit through the United States; all aliens who have been lawfully admitted to the United States and who later shall go in transit from one part of the United States to another through foreign contiguous territory. *Provided*, That nothing in this Act shall exclude, if otherwise admissible, persons convicted of or *legally charged* with an offense purely political, not involving moral turpitude. *Provided further*, That the provisions of this Act relating to the payments for tickets or passage by any corporation, association, society, municipality, or foreign Government shall not apply to the tickets or passage of aliens in immediate and continuous transit through the United States to foreign contiguous territory. *Provided further*, That skilled labor, if otherwise admissible, may be imported if labor of like kind unemployed can not be found in this country, and the question of the necessity of importing such skilled labor in any particular instance may be determined by the Secretary of Labor upon the application of any person interested, such application to be made before such importation, and such determination by the Secretary of Labor to be reached after a full hearing and an investigation into the facts of the case."

The Act provides further that provisions of this law applicable to contract labor shall not be held to exclude professional artists, etc.

During the fiscal year ending June 30, 1913, there were approximately 1,375,000 applicants for admission to this country, of whom only about 1.4 per cent. were excluded for all causes. This great influx, composed largely of unskilled laborers, undoubtedly is due largely to the activities of ticket agents and others, who solicit and induce aliens to migrate.

It being obvious that the existing law is not sufficient to meet the serious situation from an economic point of view, growing out of the fact that about 80 per cent of our immigration is composed of aliens belonging to races not of the same stock as the original settlers or the voluntary immigration previous to 25 years ago, it would seem to be incumbent upon Congress to adopt an immigration measure that will be sufficient.

ELECTRIC METER—HOW IT WORKS

The electric meter is really a tiny electric motor, of the most delicate structure and the best workmanship, housed in a little iron and glass box. The revolving part of the motor is an aluminum disk mounted between two electromagnets through which the current to be measured is passed. The current in the disk and this current flowing in the field of the electric magnets causes the disk to revolve with a speed directly proportional to the amount of current that is passing through the magnets. With each complete revolution of the disk a black band is seen to pass the glass-covered aperture in the face of the meter box, and a definite number of revolutions of the disk indicates that

one kilowatt-hour of electricity has passed through the meter.

GAS METER—HOW IT WORKS

The gas meter is very simple. Each meter box incloses a little engine which is operated by the pressure of the gas just as steam engine is operated by steam. Of course the engine does not run except when the gas is turned on beyond the meter, any more than a steam engine would operate if the exhaust were closed. All the gas that is used by the consumer passes through the cylinders of the gas engine and each complete pulse of the engine means that two cubic feet of gas have passed the meter.

COMMISSION ON INDUSTRIAL RELATIONS

The following act was passed by Congress August 23, 1912

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That a commission is hereby created to be called the Commission on Industrial Relations. Said commission shall be composed of nine persons, to be appointed by the President of the United States, by and with the advice and consent of the Senate, not less than three of whom shall be employers of labor and not less than three of whom shall be representatives of organized labor. The Department of Commerce and Labor is authorized to cooperate with said commission in any manner and to whatever extent the Secretary of Commerce and Labor may approve.

Sec. 2. That the members of this commission shall be paid actual traveling and other necessary expenses and in addition a compensation of ten dollars per diem while actually engaged on the work of the commission and while going to or returning from such work. The commission is authorized as a whole, or by subcommittees of the commission, duly appointed, to hold sittings and public hearings anywhere in the United States, to send for persons and papers, to administer oaths, to summon and compel the attendance of witnesses and to compel testimony, and to employ such secretaries, experts, stenographers, and other assistants as shall be necessary to carry out the purposes for which such commission is created, and to rent such offices, to purchase such books, stationery, and other supplies, and to have such printing and binding done, as may be necessary to carry out the purposes for which such commission is created, and to authorize its members or its employees to travel in or outside the United States on the business of the commission.

Sec. 3. That said commission may report to the Congress its findings and recommendations and submit the testimony taken from time to time, and shall make a final report accompanied by the testimony not previously submitted not later than three years after the date of the approval of this Act, at which time the term of this commission shall expire, unless it shall previously have made final report, and in the latter case the term of the commission shall expire with the making of its final report; and the commission shall make at least one report to the Congress within the first year of its appointment and a second report within the second year of its appointment.

Sec. 4. That the commission shall inquire into the general condition of labor in the principal industries of the United States including agriculture, and especially in those which are carried on in corporate forms; into existing relations between employers and employees; into the effect of industrial conditions on public welfare and into the rights and powers of the community to deal therewith; into the conditions of sanitation and safety of employees and the provisions for protecting the life, limb, and health of the employees; into the growth of associations of employers and of wage earners and the effect of such associations upon the relations between employers and employees; into the extent and results of methods of collective bargaining; into any methods which have been tried in any State or in foreign countries for maintaining mutually satisfactory relations between employees and employers; into methods for avoiding or adjusting labor disputes through peaceful and conciliatory mediation and negotiations; into the scope, methods, and resources of existing bureaus of labor and into possible ways of increasing their usefulness; into the question of smuggling or other illegal entry of Asiatics into the United States or its insular possessions, and of the methods by which such Asiatics have gained and are gaining such admission, and shall report to Congress as speedily as possible with such recommendation as said commission may think proper to prevent such smuggling and illegal entry. The commission shall seek to discover the underlying causes of dissatisfaction in the industrial situation and report its conclusions thereon.

Sec. 5. That the sum of one hundred thousand dollars is hereby appropriated out of any money in the Treasury of the United States not otherwise appropriated for the use of the commission for the fiscal year ending June thirtieth, nineteen hundred and thirteen: *Provided*, That no portion of this money shall be paid except upon the order of said commission, signed by the chairman thereof: *Provided*, That the commission may expend not to exceed five thousand dollars per annum for the employment of experts at such rate of compensation as may be fixed by the commission but no other person employed hereunder by the commission, except stenographers temporarily employed for the purpose of taking testimony, shall be paid

compensation at a rate in excess of three thousand dollars per annum.

In June, 1913, President Wilson appointed Frank P. Walsh, of Kansas City, an attorney, chairman of the Commission, and named the eight other members as follows:

To serve with Mr. Walsh as representing the general public: Professor John R. Commons of the University of Wisconsin and Mrs. J. Borden Harriman of New York City.

To represent the employers: Frederic A. Delano of Chicago, a railroad president; Harris Weinstock of San Francisco, a merchant; and S. Thurston Ballard of Louisville, a manufacturer.

To represent the employees: John B. Lennon of Bloomington, Ill., treasurer of the American Federation of Labor; James O'Connell of Washington, representative of the metal trades and third vice president of the American Federation of Labor; and Austin B. Garretson, of Cedar Rapids, Iowa, president of the Order of Railway Conductors.

President Wilson's appointments were confirmed late in the fall of 1913 and the Commission organized just before the end of the year.

The Commission outlined for itself certain general lines of inquiry, that controlled the scope of the public hearings and the work of its staff. These included an investigation into the methods and policies of organizations of employers and organizations of employees; a survey of public agencies, state and national, charged with regulating industrial conditions; an investigation of unskilled labor and its problems, such as unemployment; and an inquiry into the activities of the courts during labor disputes.

Testimony bearing on these subjects and containing constructive suggestions for improving conditions has been given at public hearings in the principal cities and industrial centers.

W. O. Thompson, of Chicago, is counsel for the Commission. In its investigation of trades unionism, the Commission has had the active assistance of Professor George E. Barnett of Johns Hopkins University, Professor of Statistics.

The investigation of unemployment, seasonal labor, irregularity of employment and other problems affecting the distribution of labor is largely in the hands of Dr. W. M. Leiserson, state superintendent of free employment agencies in Wisconsin.

Basil M. Manly has had charge of the force of investigators who preceded the Commission to a city where a public hearing was to be held, and prepared the presentation of evidence.

Information brought out at the public hearings has been added to by the Commission's experts through intensive investigations.

In January, 1915, the Commission began hearings in New York, at which the Rockefeller Foundation and Andrew Carnegie's philanthropy were discussed, the Henry Ford profit-sharing plan was investigated, report on Roosevelt strike was read, the story told of the "massacre of Ludlow," the great mine strike in Colorado was sifted, the control of railroads by banking houses was argued, and the subject of trade unions debated. The hearings aroused great interest, and our greatest educators, manufacturers and financiers took part in them. The inquiry ended in March. During April, May and June of 1915 the Commission visited Washington (holding hearings on the Colorado Coal Mine Strike, Labor and the Law, and Pennsylvania Railroad Industrial Conditions), and Chicago, the subjects discussed there being Railroad Employees—principally sleeping car porters and conductors, Stock Yard Conditions and Commercial Telegraphers.

THE POPE

Following the death of the Pope, Pius X., on August 20, 1914, a conclave of cardinals assembled at the Vatican for the election of a successor. The choice fell on Cardinal della Chiesa, who has taken the title of Benedict XV. Of the previous Popes, no fewer than 104 were Romans, 103 natives of other parts of Italy, 44 were Frenchmen, 9 Greeks, 7 Germans, 5 Asiatics, 3 Africans, 3 Spaniards, and 2 Dalmatians; while Palestine, Thrace, Holland, Portugal, and England have each contributed one to the Papal chair. Nine Popes reigned less than one month, thirty less than one year, eleven more than twenty years, and six over twenty-three years. Pius IX., whose death occurred in 1878, terminated a reign of thirty-one years, and it is not a little remarkable that the third in length of reign should have been his successor; Leo XIII., who occupied the Papal throne for over 25 years.

UNITED STATES CIVIL SERVICE

The "Civil Service Act" was approved January 16, 1883. It provides for rules to be promulgated by the President and gives the power to the President to appoint three persons, not more than two of whom shall be adherents of the same political party, as a commission, with authority to prescribe regulations for the execution of the provisions of the Civil Service act and rules.

GENERAL RULES.—The present rules were approved March 20, 1903, and went into effect April 15, 1903. In a general way they require that there must be open competitive examinations of applicants for positions in the public service; that appointments shall be made from those graded highest in the examinations; that appointments to the service in Washington shall be apportioned among the states and territories according to population; that there shall be a period (usually six months) of probation before any absolute appointment is made; that no person in the public service is for that reason obliged to contribute to any political fund or is subject to dismissal for refusing to so contribute; that no person in the public service has any right to use his official authority or influence to coerce the political action of any person. Applicants for positions shall not be questioned as to their political or religious beliefs and no discrimination shall be exercised against or in favor of any applicant or employee on account of his religion or politics. The classified civil service shall include all officers and employees in the executive civil service of the United States except mere manual laborers and persons whose appointments are subject to confirmation by the Senate.

EXAMINATIONS.—These are conducted by boards of examiners chosen from among persons in government employ and are held in all the states and territories. They can always be learned of by applying to the commission or to the nearest postoffice or custom house. Applicants are advised to write to the commission in Washington for the "Manual of Examinations" which is sent free. It is revised semi-annually to Jan. 1 and July 1, containing the spring and fall schedules of examinations. Full information is given as to the methods and rules governing examinations, certification for and chances of appointment, and as far as possible it outlines the scope of the different subjects of general and technical examinations. These are practical in character and are designed to test the relative capacity and fitness to discharge the duties to be performed. It is necessary to obtain an average percentage of 70 to be eligible for appointment, except that applicants entitled to preference because of honorable discharge from the military or naval service for disability resulting from wounds or sickness incurred in the line of duty need obtain but 65 per cent (Sec. 1754, R. S.). The period of eligibility is one year.

QUALIFICATIONS.—No person will be examined who is not a citizen of the United States; who is not within the age limitations prescribed; who is physically disqualified for the service which he seeks; who has been guilty of criminal, infamous, dishonest, or disgraceful conduct; who has within one year been dismissed from the public service for delinquency or misconduct; who has within one year failed to receive absolute appointment after probation to the position for which he again applies for examination; who is addicted to the habitual use of intoxicating liquors to excess; who has made a false statement in his application, or who has been dishonorably discharged from the Army, the Navy, or the Marine Corps. The age limitations for certain of the common positions are as follows: Clerks and city carriers in postoffices, 18 to 45 years; rural carriers, 18 to 55 years; railway mail clerks, 18 to 35 years; clerks, bookkeepers, stenographers, and typewriters, 18 years or over; mechanical trades, 20 years or over. These age limitations are subject to change by the Commission with the approval of the departments interested. They do not apply to applicants entitled to preference under Sec. 1754, R. S. Applicants for many examinations must meet rigid physical requirements.

METHOD OF APPOINTMENT.—When a vacancy exists the appointing officer makes requisition upon the civil service commission for a certification of names to fill the vacancy, specifying the kind of position vacant, the sex desired and the salary. The commission thereupon takes from the proper register of eligibles the names of three persons standing highest of the sex called for and certifies them to the appointing officer, who is required to make the selection. He may choose any one of the three names, returning the other two to the register to await further certification. The time of examination is not considered, as the highest in average percentage on the register must be certified first.

REMOVALS.—No person can be removed from a competitive position except for such cause as will promote the efficiency of the public service and for reasons given in writing. No examination of witnesses nor any trial shall be required except in the discretion of the officer making the removal.

SALARIES.—Entrance to the departmental service is usually in the lowest grades, the higher grades being generally filled by promotion. The usual entrance grade is about \$900, but the applicant may be appointed at \$840, \$720 or even \$600.

STATISTICS OF FEDERAL CIVIL SERVICE

The extent of the federal civil service may be judged from the fact that there are over 454,116 workers. Of the various positions more than 292,000 are competitive, more than 123,000 non-competitive, over 27,000 are unclassified, and more than 10,000 filled by presidential appointees.

FEDERAL IMPEACHMENTS

Since the adoption of the Constitution there have been only nine times in the century and a quarter that impeachment proceedings have been instituted against a civil officer of the national government. Only three of these resulted in convictions, all of which were judges of the Federal District Court.

The nine impeachments of Federal officials, which have been considered by the United States Senate, are as follows:

William Blount, United States Senator, 1797-98, no trial, lack of jurisdiction.

John Pickens, United States District Judge, 1803-04, found guilty, and removed from office.

Samuel Chase, Associate Justice of the United States Supreme Court, 1804-05, tried and acquitted.

James Peck, United States District Judge, 1829-30, tried and acquitted.

West H. Humphreys, United States District Judge, 1862, tried, found guilty, and removed from office.

Andrew Johnson, President, 1868, tried and acquitted.

W. W. Belknap, Secretary of War, 1876, tried, failed of conviction on ground of lack of jurisdiction.

Charles Swayne, United States District Judge, 1905, tried and acquitted.

Robert W. Archbald, circuit judge designated to serve on the Court of Commerce, 1912, convicted.

BLINDNESS IN OLD AGE

Although blindness may occur at any time of life, it is peculiarly a defect incident to old age. In fact 49.4 per cent of the blind reported in 1910 were sixty years of age and over, whereas only about 6.8 per cent. of the total population were sixty years of age and over. In other words the median age of the total population in 1910 was 24.2 years—that is, one-half the population were under that age and the other half had passed it—while the median age of the blind population was 59.6 years, or nearly two and one-half times as great. Among children under five years only 5 in every 100,000 were blind; among persons, eighty-five years of age and over, 2,575 in 100,000 were blind. Comparisons with earlier censuses indicate that there has been a decrease in the prevalence of blindness among the younger population.

It is estimated that the total number of blind persons in the world is 2,390,000. The total number enumerated at the most recent censuses of the blind in all countries in which they have been taken is 1,194,346. These countries represent nearly all of Australia, nearly all of Europe and North America, and portions of South America, Africa, and Asia, together with certain of the insular possessions of European and American countries. Countries in which the ratios of the blind to total population are lower than that of the United States (62.3 per 100,000) are: Canada, 44.9 in 1911; Belgium, 43.5 in 1910; Germany, 60.9 in 1900; Denmark, 52.7 in 1911; Netherlands, 46.3 in 1909; New South Wales, 61.4 in 1911; Western Australia, 50.3 in 1911, and New Zealand, 47.8 in 1911.

IMPORTANT DATES IN AMERICAN HISTORY

1492. Oct. 12, Columbus discovers America.
1497. Newfoundland and Labrador discovered by the Cabots.
1498. Aug. 1, Columbus discovers the South American continent.
1499. South America visited by Americus Vesputius.
1500. The Amazon at its mouth discovered by Pincon.
1513. March 27, Florida discovered by Juan Ponce de Leon.
- Sept. 26, Pacific Ocean discovered by Balboa.
1519. March 13, Cortez lands at Tabasco in Mexico.
1520. Magellan discovers Patagonia.
- De Ayllon discovers Carolina.
1522. Bermudas discovered by Juan Bermudez.
1534. Cartier entered and named the Gulf of St. Lawrence.
1537. California discovered by Cortez.
1539. De Soto heads an expedition to conquer Florida.
1541. De Soto discovers the Mississippi.
1563. Slaves first imported into the West Indies by the English.
1565. St. Augustine founded by the Spaniards.
1584. Sir Walter Raleigh dispatches two vessels to Virginia.
1586. Discovery of Davis's Strait.
1602. May 15, Cape Cod discovered and named by Bartholomew Gosnold.
1608. July 3, Quebec founded by Champlain.
1609. Hudson River discovered by Henry Hudson.
1611. Lake Champlain discovered by Champlain.
1614. New York settled by the Dutch on Manhattan Island (now New York) and at Fort Orange (Albany).
1616. Tobacco first cultivated in Virginia.
1619. June 19, first colonial assembly in Virginia.
1620. Slaves first introduced into Virginia by the Dutch.
- Nov. 10, the Mayflower anchors in Cape Cod harbor; first white child born in New England.
- Dec. 11, landing of the Puritans at Plymouth.
1626. Maine and New Hampshire settled by the English. New Jersey settled by the Swedes and Dutch.
1628. Salem, Mass., founded by John Endicott.
1629. Charleston founded by the Massachusetts Bay Colony.
1630. Delaware settled by the Swedes and Finns.
1634. Maryland founded by Lord Baltimore.
1636. Hartford settled. Providence, R. I., founded by Roger Williams.
- Harvard College founded.
1638. New Haven founded by Eaton and Davenport.
1639. First printing press set up at Cambridge, Mass., by Stephen Day.
1648. First execution for witchcraft.
1650. Harvard College chartered. Constitution of Maryland settled.
1663. Carolina granted to Lord Clarendon by Charles II.
1664. Aug. 29, New Amsterdam surrendered to the English and became New York.
1665. June 12, New York City incorporated.
1672. Charleston, S. C., founded. First copyright granted by Massachusetts.
1675. June 24, commencement of King Philip's war.
1681. Grant of Pennsylvania to William Penn.
1701. Yale College founded at Saybrook. Commencement of Queen Anne's war.
1703. Culture of silk introduced into Carolina.
- Duty of £4 laid on imported negroes in Massachusetts.
1704. First newspaper (Boston News Letter) published at Boston by Bartholomew Green.
1710. First Colonial post office at New York.
1712. Free schools founded at Charlestown, Mass.
1714. First schooner built at Cape Ann.
1717. New Orleans founded by the French.
1721. Inoculation for small-pox introduced into New England.
1725. First newspaper in New York (New York Gazette) published by William Bradford.
1729. North and South Carolina separated.
1732. Tobacco made a legal tender in Maryland at 1d per pound, and corn at 20d per bushel.
1733. Georgia settled by Oglethorpe.
1738. College founded at Princeton, N. J.
1742. Faneuil Hall erected at Boston by Peter Faneuil.
1743. King George's War begun.
1750. First theatrical performance in Boston.
1754. Columbia College in New York founded.
- Beginning of the old French war.
1755. July 9, Braddock's defeat.
- Sept. 8, Battle of Lake George.
1757. Fort William Henry taken by the French.
1759. Niagara, Ticonderoga and Crown Point taken by the English, in July.
- Sept. 13, Battle on the Plains of Abraham; Wolf and Montcalm slain.
- Sept. 18, Quebec surrenders to the English.
1773. Dec. 16, destruction of 342 chests of tea in Boston Harbor.
1775. Several ships of the line and ten thousand troops ordered to America.
- April 19, Battle of Lexington.
- Congress votes to raise an army of twenty thousand men.
- June 15, George Washington appointed commander-in-chief of the American Army.
- June 17, Battle of Bunker Hill.
- July 12, Washington takes command of the army at Cambridge.
1776. March 17, the British evacuate Boston.
- April, Washington removed his army to New York.
- June 28, repulse of the British at Charleston.
- July 4, Declaration of Independence.
- Aug. 27, Battle of Long Island; the British victorious.
- Washington abandoned New York City; the British take possession Sept. 15.
- Oct. 28, Battle of White Plains.
- Dec. 26, Battle of Trenton.
1777. Lafayette arrives from France with troops and supplies.
- Congress gives him a major-general's commission, July 31.
- Aug. 16, Battle of Bennington.
- Sept. 11, Battle of Brandywine.
- Oct. 17, surrender of the British army under Burgoyne.
1778. June 18, the British evacuate Philadelphia.
- July 11, arrival of a French fleet under Count d'Estaing.
1780. May 12, surrender of General Lincoln and American army at Charleston.
- Sept. 23, treason of Gen. Arnold, and arrest of Major Andre.
1781. Bank of North America established.
- Oct. 19, surrender of Cornwallis and 7,000 troops at Yorktown.
1782. April 17, Holland acknowledges our independence.
- Nov. 30, preliminaries of peace between the United States and Great Britain signed at Paris.
1783. Independence of United States acknowledged by Sweden, Feb. 5; by Denmark, Feb. 25; by Spain, March 24; and by Russia, in July.
- April 11, peace proclaimed by Congress.
- April 19, announced to the army by Washington.
- Nov. 25, New York evacuated by the British.
- Shay's insurrection in Massachusetts.
1786. George Washington elected president. Inaugurated April 30th.
1793. Washington re-elected president.
- Insurrection in Pennsylvania.
1794. Dec. 14, death of Washington.
1800. Seat of government moved to city of Washington.
1804. Alexander Hamilton killed by Aaron Burr in a duel.
1807. Trial of Aaron Burr for treason.
1808. Jan. 1, the slave trade abolished.
1811. Nov. 7, Battle of Tippecanoe.
1812. June 18, war declared against Great Britain.
1813. May 27, Battle of Fort George.
- Sept. 10, Commodore Perry's victory on Lake Erie.
1814. Aug. 25, the British occupy the city of Washington and burn the capitol.
- Sept. 11, Macdonough's victory on Lake Champlain.
1815. Jan. 8, Battle of New Orleans.
- March, war declared with Algiers.
1819. First steamship sailed for Europe.
1821. Gas first used for lighting streets in the United States at Baltimore.
1825. Oct. 26, Erie Canal completed.
1835. Dec. 16, great fire in New York.
- Seminole war in Florida begun.
1841. April 4, death of General Harrison, John Tyler succeeds as president.
1846. May 13, proclamation of war existing with Mexico.

1846. Oct. 25, Tobasco in Mexico bombarded by Commodore Perry.
1847. Sept. 14, the American army enters the City of Mexico.
1848. Feb. 23, John Quincy Adams expires in the capitol at Washington.
1849. May 15, the cholera breaks out in New York.
1850. July 9, death of President Taylor at Washington.
- July 10, Millard Fillmore takes the oath of office as president.
- Sept. 18, fugitive slave bill passed.
1852. June 29, Henry Clay dies at Washington.
- Oct. 24, Daniel Webster dies at Marshfield.
1853. July 14, crystal palace at New York opened.
1858. Aug. 5, news of the successful laying of the Atlantic telegraph cable is received throughout the country with great demonstrations of joy. The cable was placed in mid-ocean July 29; the Agamemnon reached Valencia, Aug. 4, and the Niagara Trinity Bay, Aug. 5.
1859. Oct. 6, John Brown's seizure of Harper's Ferry; he is captured and hung Dec. 2.
1860. May 18, Lincoln nominated by Republican convention at Chicago.
1861. Feb. 4, Seceders' convention at Montgomery, Ala.; call themselves "Confederate States of America," and adopt a constitution.
- Feb. 14, Jeff. Davis made president of the confederates; they raise troops and arm for war.
- April 14, Fort Sumter surrenders after two days' bombardment by the confederates.
1862. Feb. 16, Gen. Grant takes Fort Donelson with over 13,000 prisoners, after four days of tremendous fighting.
- Feb. 22, Jeff. Davis inaugurated rebel president for six years.
- March 9, battle between Monitor and Merrimac.
- April 6 and 7, Battle of Shiloh.
- May 31, Battle of Fair Oaks, McClellan's advance defeated severely by rebels.
- June 6, great naval battle in the river before Memphis; Memphis surrendered on the same day to Commodore Davis.
- July 1, Battle of Malvern Hill, last of the Seven Days' Battles; rebels repulsed, and the position on the James maintained. Total union losses in seven days, 15,244.
- July 1, President Lincoln calls for 600,000 volunteers.
- Aug. 29 and 30, Gen. Pope defeated at Bull Run after very heavy fighting, and falls back.
- Sept. 16 and 17, battle of Antietam; rebels defeated.
- Sept. 22, Emancipation Proclamation announced for Jan. 1, 1863.
- Dec. 11-14, Battle of Fredericksburg.
- Dec. 31, Battle of Stone River.
1863. Jan. 1, the definite Emancipation Proclamation issued.
- May 1-5, Battle of Chancellorsville; indecisive, but great losses on both sides.
- July 1-3, Battle of Gettysburg; Lee defeated and retreated at once southward.
- July 4, unconditional surrender of Vicksburg and 31,000 men to Gen. Grant.
- July 13-18, draft riots in New York city, several negroes tortured and hung by mob, and much burning and robbing; 1,300 rioters killed, and riots put down.
- Sept. 19-20, Battle of Chickamauga.
- Oct. 17, President Lincoln calls for 300,000 more men.
1864. March 17, Gen. Grant assumes command of all the armies of the U. S.
- May 5-6, the tremendous battle of the Wilderness; resulting in Lee's retreating.
- May 8-18, Battle of Spotsylvania.
- June 1-4, Battle of Cold Harbor.
- June 7, Mr. Lincoln renominated at Baltimore.
- July 16, gold about this time at its highest in New York, viz., 284 per cent.
- Aug. 5, Admiral Farragut's splendid victory in forcing his way into Mobile Harbor.
- Nov. 8, Lincoln re-elected. Gen. McClellan resigns his commission.
1865. April 2, Grant attacks heavily along his whole line; Lee decisively defeated, Petersburg and Richmond evacuated at night and Davis flees.
- April 9, Lee surrenders with his army of 26,115 men.
- April 14, Booth assassinates President Lincoln, and his confederate Payne tries to kill Mr. Seward.
- Mr. Lincoln dies at 7:22 next morning.
1865. Dec. 18, the Secretary of State, Mr. Seward, officially declared slavery abolished throughout the United States, 27 States having ratified the Constitutional Amendment.
1866. July 4, extensive conflagration in Portland, Me., one-third of the city burnt and property amounting to \$10,000,000.
- July 27, laying of the Atlantic cable successfully completed.
1867. June 20, Alaska purchased from Russia for \$7,200,000.
1869. Completion of first transcontinental railway.
1871. Oct. 8, the great Chicago fire in which more than 250 persons lost their lives, and destroyed property to the amount of \$196,000,000.
1876. Centennial anniversary of American Independence at Philadelphia.
1881. July 2, President Garfield shot by Charles J. Guiteau at Washington.
- Sept. 19, President Garfield died at Long Branch.
1886. Jan. 18, presidential succession established.
1887. Feb., Interstate Commerce Act passed.
1889. May 31, Johnstown flood.
1890. July 4, Idaho and Wyoming admitted as states.
1893. World's Fair at Chicago.
1894. July 4, Hawaii made a republic.
1895. Feb. 24, Cuban revolt began.
1897. Jan. 11, Anglo-American Arbitration Treaty signed.
- Nov. 8, Bering Sea Seal Treaty signed.
- Feb. 15, battleship Maine blown up in Havana Harbor.
1898. April 25, war declared against Spain.
- May 1, Dewey's victory at Manila.
- July 3, Naval battle of Santiago de Cuba.
- July 7, Hawaii annexed by United States.
- July 17, Santiago de Cuba surrendered.
- Aug. 12, Peace protocol signed.
- Dec. 10, Philippines and Porto Rico ceded to the United States.
- Dec. 12, Paris Peace Treaty signed.
1899. Jan. 1, Cuba under sovereignty of United States.
- Feb. 4, Philippine-American war begun.
- April 11, Philippines, Porto Rico and Guam formally acquired by the United States.
1900. Sept. 8, Galveston tornado.
1901. Feb. 21, Cuban Constitution signed.
- Sept. 6, Assassination of President McKinley.
1902. April 30, Philippine-American war ended.
- May 20, Cuban republic inaugurated.
- Dec. 14, laying of Pacific cable begun at San Francisco.
1903. March 19, Cuban-United States Reciprocity Treaty ratified.
- Oct. 17, Alaska boundary award made.
1904. Feb. 26, Panama Canal Zone formally acquired by the United States.
1906. April 18-20, San Francisco earthquake and fire.
- Sept. 29, President Palma of Cuba and cabinet resigned and American control established.
1907. Nov. 16, Oklahoma and Indian territory admitted to Union as State of Oklahoma.
- Dec. 16, 1907 to Feb. 22, 1909, American battleship cruise around the world.
1908. June 24, Grover Cleveland died.
- Oct. 1, postage between United States and Great Britain reduced to two cents.
1909. Jan. 28, American control of Cuba relinquished.
- April 6, North Pole discovered by Commander Robert E. Peary.
1910. June 1, fisheries (Atlantic) dispute settled by Hague.
1911. Jan. 3, Postal banks established in United States.
1912. Feb. 14, Arizona and New Mexico admitted as states.
1913. Dec. 23, Congress passed the Federal Reserve Act.
1914. April 22, Vera Cruz taken by U. S. Navy.
- Aug. 15, Official opening of Panama Canal.
- Nov. 23, Withdrawal of U. S. Troops from Vera Cruz.
1915. Feb. 20, Opening of Panama-Pacific Exposition at San Francisco.
1916. Feb. 28, Treaty signed with Haitian Government for U. S. to assume protectorate over them.
- June 19, President Wilson called out State Militia for Mexican border duty.
- Sept. 7, Senate ratified treaty to purchase Danish West Indies.

EXPLORATIONS AND DISCOVERIES

Year B.C.	Explorer and Nationality	Discovery or Exploration	Year	Explorer and Nationality	Discovery or Exploration
500	Himilco (<i>Carthage</i>)...	Atlantic coast of Europe. May have extended to Sargasso Sea.	1498	Sebastian Cabot (<i>English</i>).....	Explores American coast from Gulf of St. Lawrence to Chesapeake Bay.
500	Hecataeus (<i>Miletus</i>)..	Writes the first geography.	1498	Columbus (<i>Genoan</i>)..	July 31, Trinidad Islands discovered; August 1, enters mouth of Orinoco River.
470	Hanno (<i>Carthage</i>)...	Leads a colonizing expedition to West Africa as far as Cape Palmas.	1499	Ojeda (<i>Italian</i>).....	Discovers Gulf of Venezuela and New Granada.
330	Pytheas (<i>Massilia</i>)...	Coast of Spain, Gaul, and Great Britain.	1500	Vincente Pinzen (<i>Spanish</i>).....	Discovers mouth of the Amazon.
332-326	Alexander the Great (<i>Macedonia</i>).....	Occupies Egypt and founds Alexandria 332; invades India 326.	1500	G. Cortereal (<i>Port.</i>)..	Reaches entrance of Hudson Strait, called by him Strait of Aniam; explores Labrador.
325	Nearchus (<i>Macedonia</i>)	Sails from the Indus to the Euphrates.	1501	Pedro Alvarez Cabral (<i>Port.</i>).....	Explores coast of Brazil, which he names Santa Cruz.
about 218	Hannibal (<i>Roman</i>) ..	Crosses the Alps.	1502	Amerigo Vespucci (<i>Genoan</i>).....	Discovers Bay of Rio de Janeiro.
about 120	Eudoxus of Cnidus (<i>Greek</i>).....	Attempts circumnavigation of Africa.	1502	Columbus (<i>Genoan</i>)..	Visits Central America on his fourth voyage; discovers Martinique.
61-48	Julius Caesar (<i>Roman</i>)	Leads expeditions into Gaul, Germany, and Britain.	1513	Ponce de Leon (<i>Span.</i>)	Discovers Florida and sails up the west coast of the Peninsula.
15	Tiberius (<i>Roman</i>)...	Discovers the Lake of Constance.	1513	Balboa (<i>Spanish</i>)....	Crosses Isthmus of Panama and discovers the Pacific Ocean.
A.D.			1516	Juan Solís (<i>Span.</i>)...	Enters and explores the Rio de la Plata.
84	Agricola (<i>Roman</i>)...	Circumnavigates Great Britain.	1518	Juande Grijalva....	Discovers east coast of Mexico.
150	Claudius Ptolemy... (<i>Egypt</i>).....	Issues his "Syntaxis," asserting that the sun and stars revolve around the earth; calculates circumference of the globe.	1519-1521	Cortez (<i>Spanish</i>)....	Conquest of Mexico.
861	Norsemen.....	Faroe Islands. North Cape of Europe rounded.	1519-1521	Magellan (<i>Spanish</i>)..	First to circumnavigate the globe. Passes through Strait of Magellan; crosses the Pacific and discovers the Philippines.
865	Naddod (<i>Norse</i>)....	Discovers Iceland.	1523	Davila Gonzales....	Discovers the lakes of Nicaragua.
876	Gunnbjörn (<i>Norse</i>)...	Sights Greenland coast.	1524	Giovanni Verrazano (<i>Italian</i>).....	Explores coast of N. Carolina, Maryland, New Jersey and New York.
982	Eric the Red (<i>Norse</i>)	Discovers and names Greenland.	1524-1535	Jacques Cartier (<i>French</i>).....	Explores Gulf of St. Lawrence; ascends river to Montreal.
1000	Leif Ericson (<i>Norse</i>)..	Discovers Newfoundland (Helluland), and coast of New England (Vinland).	1534	Pizarro (<i>Spanish</i>)...	Completes the conquest of Peru.
1154	Idrisi (<i>Arab</i>).....	Produces a description of the world, very important in the history of geography.	1539	Francesco de Ulloa..	Explores Gulf of California, and proves that Lower California is a peninsula.
about 1200	Arabs.....	Trading merchants discover Siberia.	1541	Francisco de Orellana (<i>Spanish</i>).....	Explores part of the Amazon River.
1253	Ruysbroek.....	Reaches Karakorum, the ancient seat of the Mongol Empire.	1541	De Soto (<i>French</i>)....	Discovers the Mississippi River.
1271-1295	Marco Polo (<i>Venet.</i>)..	Travels in Central Asia, India, Persia. First to travel in China.	1542	Antonio de Mota....	First reaches Japan.
1325-1352	Ibn Batuta (<i>Arabian</i>)	Travels through N. Africa, E. Africa, S. Russia, Arabia, India and China.	1576	Frobisher (<i>English</i>)..	Explores Labrador and Baffin Bay; discovers Frobisher Bay.
1336	Sir John Mandeville (<i>Eng.</i>).....	Travels in India.	1577-1580	Sir Francis Drake (<i>English</i>).....	Second circumnavigation of the globe; explores west coast of North America as far as Oregon.
1474	Toscanelli (<i>Italian</i>)..	Sends Columbus his map showing the western route to China.	1585	John Davis (<i>Eng.</i>)...	Discovers Davis Strait in looking for Northwest Passage.
1485	Diego Cam (<i>Port.</i>)...	Mouth of the Kongoreached.	1592	John Davis (<i>Eng.</i>)...	Discovers the Falkland Is.
1487	Bartholomew Dias (<i>Port.</i>).....	Rounds Cape of Good Hope to a point beyond Algoa Bay.	1595	Sir Walter Raleigh (<i>English</i>).....	Explores Guinea and ascends the Orinoco 400 miles.
1492-1494	Columbus (<i>Genoan</i>)..	Oct. 12, discovers the West Indies; Nov. 3, 1493, on second voyage discovers Dominica, Porto Rico and several of the Windward group of islands; May 3, 1494, Jamaica is discovered.	1596	William Barents....	Spitsbergen, Nova Zembla, Barents Sea.
1497	Amerigo Vespucci....	Discovers Venezuela and the continent of So. America.	1598	Mendaña de Neyra (<i>Spanish</i>).....	Discovers Marquesas Islands.
1497	John Cabot (<i>Anglo-Venetian</i>).....	Sails along the N. E. coast of America, discovering Cape Breton Islands and Nova Scotia.	1606	Queiros (<i>Spanish</i>)...	Discovers the New Hebrides.
1498	Vasco da Gama (<i>Port.</i>)	Route to India by Cape of Good Hope	1606	Torres (<i>Spanish</i>)....	Discovers Torres Strait.
			1608	Champlain (<i>French</i>)..	Discovers Lake Ontario.

Year	Explorer and Nationality	Discovery or Exploration	Year	Explorer and Nationality	Discovery or Exploration
1608	John Smith (<i>Eng.</i>)...	Explores Chesapeake Bay and its tributaries.	1830-1832	Biscoe (<i>English</i>)....	Enderby Land and Graham Land.
1609-1610	Henry Hudson (<i>Eng.</i>)	Explores Hudson River and Hudson Bay.	1831	Sir J. Ross (<i>Eng.</i>)..	Magnetic North Pole plotted.
1610	Sir Thomas Smythe (<i>English</i>).....	Discovers Delaware Bay.	1832	Laird and Oldfield (<i>Scot.</i>).....	Exploration of the Niger and Benué.
1614-1617	Spillbergen (<i>Dutch</i>)..	Circumnavigation of the globe.	1833-1835	Sir Geo. Back (<i>Eng.</i>)	Great Fish River or Back River in the Arctic.
1616	Wm. Baffin (<i>Eng.</i>) ..	Enters Baffin Bay on quest of Northwest Passage.	1835	Sir F. Schomburgk (<i>German</i>).....	Explorations in British Guiana.
1616	Willem Schouten and Jacob Le Maire...	First to double Cape Horn.	1837-1840	D'Urville (<i>French</i>)...	Adélie Land. Reaches 66° 30' S. lat.
1616	Dirk Hartog (<i>Dutch</i>)	Surveys port of west coast of Australia and visits Shark Bay.	1839	J. Balleny (<i>English</i>)..	Balleny Islands, 66° 44' S. lat.
1631	Fox.....	Discovers Fox Channel; touches Cape Peregrine.	1839-1841	Edward John Eyre (<i>English</i>).....	Explores Australia and discovers Lake Torrens. In 1841 journeys from Adelaide to King George's Sound.
1642	Abel Tasman (<i>Dutch</i>)	Van Dieman's Land (Tasmania) and New Zealand.	1840	Trummer.....	Remains of ancient Nineveh.
1644	Abel Tasman (<i>Dutch</i>)	Discovers Gulf of Carpentaria.	1841	Sir James C. Ross (<i>English</i>).....	Victoria Land, with volcanoes Erebus and Terror.
1660	French.....	The St. Lawrence Lake region discovered.	1844-1845	Leichhardt (<i>German</i>)	Crosses Australia, from Moreton Bay to South Africa.
1673	Marquette and Joliet	Exploration of Mississippi from the north.	1846	Sir John Franklin....	Penetrates to within twelve miles of the northern extremity of King William's Land.
1679	French.....	Exploration of the Great Lakes and the Mississippi.	1849-1873	David Livingstone (<i>Scot.</i>).....	Discovers Lake Ngami 1849; explores Zambezi and Kuanza basins to Loanda 1851-1854; discovers Victoria Falls 1855; discovers Lakes Shiriwa and Nyassa 1858-1859; explores many smaller bodies of water tracing their sources, also the cannibal country 1860-1873.
1681	La Salle (<i>French</i>)....	Explores lower Mississippi and takes possession for Louis XIV.	1850-1855	Richardson & Barth (<i>English</i>).....	From Tripoli explores plateau of Hammada.
1701	Father Kino.....	Makes explorations in California.	1850	Sir R. M'Clure (<i>Irish</i>)	Discovers North-West Passage.
1728	Bering (<i>Dane</i>).....	Discovers Bering Strait and proves that Asia and America are not connected.	1852-1854	Sir C. R. Markham (<i>English</i>).....	Explorations in Peru.
1725-1743	Russians.....	Explore the coast of Siberia.	1856-1859	Du Chaillu (<i>French</i>)	Botanic and zoologic explorations of basin of Ogowe River, W. Africa.
1742	Bering (<i>Dane</i>).....	Explores northwest coast of America to lat. 69° N.	1858	Sir Richard Burton (<i>English</i>).....	Lake Tanganyika.
1768-1775	Capt. Cook (<i>Eng.</i>) ..	Hydrographical surveys of the Society Islands, Sandwich Islands, east coast of Australia, Cook Strait in New Zealand, etc.	1858	Speke and Grant (<i>English</i>).....	Victoria Nyanza.
1770-1773	James Bruce (<i>Scot.</i>)	Reaches source of the Blue Nile; explores Syria and Abyssinia.	1861	Sir Samuel Baker (<i>English</i>).....	Explores Upper Nile; discovers Albert Nyanza in 1864.
1770	Liakhov (<i>Russian</i>) ..	Discovers new Siberian Islands.	1862	M'Donnall Stuart (<i>Scot.</i>).....	Crosses Australia from south to north.
1773	Capt. Cook (<i>Eng.</i>) ..	Antarctic Ocean to lat. 71° 15' S.	1865-1866	G. Rohlfs (<i>German</i>)..	Journey from Tripoli to Lagos, exploring many lakes and oases.
1785-1788	La Perouse (<i>French</i>)..	North of Japan; discovers Strait of Perouse.	1867-1872	Ferd. Richthofen (<i>German</i>).....	Extensive travel and exploration in China, Japan and Siam.
1789-1793	Alex. Mackenzie (<i>Scot.</i>).....	Exploration of Mackenzie River; first to make overland trip to Pacific Coast.	1868-1871	George Schweinfurth (<i>German</i>).....	Exploration of the Jur, Niam-Niam, and Monbuttu countries, discovering the Welle River.
1792	George Vancouver (<i>English</i>).....	Vancouver Island circumnavigated; exploration of Gulf of Georgia.	1869-1874	Gustav Nachtigal (<i>German</i>).....	Explorations in Lake Chad region and Central Sudan States.
1795-1796	Mungo Park (<i>Scot.</i>)..	Explorations in the Niger districts as far as Bamaku.	1871	Charles Hall (<i>U. S.</i>)	Sails from New London in the <i>Polaris</i> in search of North Pole. Passes through Kennedy and Robeson Channels and reaches lat 82° 11' N. the farther north.
1801-1804	Matthew Flinders (<i>English</i>).....	Southern coasts of Australia.	1872	Payer and Weyprecht (<i>Austrian</i>).....	Discover Franz Josef Land
1803-1806	Adam Krusenstern (<i>Russian</i>).....	Surveys in Sea of Japan and Sea of Okhotsk; circumnavigates the world.			
1819	Sir Wm. E. Parry (<i>Eng.</i>)	Parry Archipelago.			
1823	Wrangel (<i>Russian</i>)...	Discovers Wrangel Land, and explores Arctic regions.			
1823	Denham and Clapperton (<i>English</i>)...	Explore south end of Lake Chad.			
1825-1826	A. G. Laing (<i>Scot.</i>)..	Reaches Timbuktu from Tripoli.			
1827-1828	René Caillie (<i>French</i>)	Journey from Kakandy to Timbuktu and Morocco.			
1830	Chas. Sturt (<i>Eng.</i>) ..	Discovers the Murray River and Lake Alexandrina, Australia.			

Year	Explorer and Nationality	Discovery or Exploration	Year	Explorer and Nationality	Discovery or Exploration
1873	Warburton (<i>English</i>)	Crosses Western Australia from East to West.			possession of many provinces in the name of Canada.
1876	De Brazza (<i>French</i>)	Explorations in the Ogowé and Gabun regions, Africa.			
1876	H. M. Stanley (<i>Welsh</i>)	Discovers Albert Edward Nyanza and establishes the fact that the waters west of the Lake Tanganyika are tributary to the Kongo.	1908	Dr. Sven Hedin (<i>Swed.</i>)	Explores western Tibet from north to south, establishing the fact that it is traversed with parallel ranges extending east and west; discovery and exploration of main branches of Indus.
1876	Sir Geo. Nares & A. H. Markham (<i>Eng.</i>)	Grant Land. Penetrated as far N. as 83° 20' lat.	1908	Dutch	Explore part of Dutch New Guinea.
1878-1879	Nordenskjöld (<i>Swed.</i>)	North-East Passage.	1909	Robert E. Peary (<i>U. S.</i>)	North Pole reached by Peary, Henson and four Eskimos on April 6.
1878-1885	Major Serpa Pinto (<i>Port.</i>)	Twice crosses Africa.	1909	Sir Ernest H. Shackleton (<i>Eng.</i>)	Reaches lat. 88° 23' S.; ascends Mt. Erebus; organizes a party which determines the location of the South Magnetic Pole.
1878-1892	Emin Pasha (<i>Ger.</i>)	Travels and surveys in Equatorial Africa. Discovery of Semliki River, &c.	1909-1910	Dr. Wilhelm Sievers	Discovers that the ultimate source of the Marañon Amazon is to be found on the snow mountain San Lorenzo.
1879	Moustier and Zweifel (<i>Swiss</i>)	Sources of the Niger.			
1881	George W. DeLong (<i>U. S.</i>)	Sails from San Francisco July 8, 1879, drifts north-west until he reaches lat. 77° 15'.	1910	French	Investigation of the south-western part of the Sahara.
1881-1884	A. W. Greely (<i>U. S.</i>)	Grinnell Land and NE. coast of Greenland. Expedition reaches 83° 24' N. 1882.	1910	Dr. Karl Kumm	Crosses Africa from Niger to Nile determining the water parting between the Nile Kongo and the Shari River.
1885	Wissmann (<i>German</i>)	Across Africa from West coast, Kongo Basin.	1911	Maj. P. H. Fawcett (<i>Eng.</i>)	Follows Heath River (Boli-via) for 300 miles on foot mapping out surrounding topography.
1880-1885	Wilhelm Junker (<i>Russ.-Ger.</i>)	Welle-Mobangi, and the Nyam-Nyam country.	1911	Captain Strümpel	Surveys last unknown stretch of the Benué River, largest tributary of the Niger.
1886	Robert E. Peary (<i>U. S.</i>)	Makes his first journey to North Greenland.	1911	Captain Raold Amundsen (<i>Norse</i>)	Discovers the South Pole on Dec. 14.
1886	Capt. Younghusband (<i>English</i>)	Travels from Pekin to Kashmir.	1912	Robert F. Scott (<i>Eng.</i>)	Reaches the South Pole on January 18.
1891	Robert E. Peary (<i>U. S.</i>)	Traverses the inland ice of Greenland and proves the convergence of the eastern and western coasts of the north part.	1912	Vilhjalmar Stefansson	Reports the discovery of a race of "blond Eskimos" in the Coronation Gulf region of Victoria Land.
1897	Jackson (<i>Scot.</i>)	Surveys and explorations in Franz Josef Land.	1912	Herschel C. Parker (<i>U. S.</i>)	Scales Mount McKinley to within 300 feet of top. Makes complete series of maps of surrounding country.
1896-1897	Sven Hedin (<i>Swed.</i>)	Explorations in North Central Asia and Tibet.	1913	Captain I. P. Koch (<i>Danish</i>)	Traverses the inland ice of Greenland from Cape Bismarck, to the west coast, near Upernavik, which he reached on July 12, 1913.
1893-1896	Fridtjof Nansen (<i>Norwegian</i>)	Reaches with sledges lat. 86° 14' N.—the farthest north.	1913	Hudson Stuck (<i>U. S.</i>)	Reaches the top of Mount McKinley on June 21.
1894-1895	Donaldson Smith (<i>Scot.</i>)	Explores region of Lake Rudolf.	1913	Captain Vilkitiski (<i>Russian</i>)	Reports the discovery in the Arctic Ocean of Siberia of new lands to the north of Cape Chelyuskin, from which it is separated by a strait.
1896-1898	Capt. Marchand	Travels from Upper Mobangi to Fashoda.	1914	Col. Theodore Roosevelt (<i>U. S.</i>)	Discovers Roosevelt River, S. A. a large tributary of the Maderia.
1897	Andrée (<i>Swed.</i>)	Attempt to cross over the North Pole in a balloon, with fatal results.	1915	Donald B. MacMillan (<i>U. S.</i>)	Leader of The "Crocker Land" Expedition reports that "Crocker Land" does not exist where Peary placed it in 1906.
1897	D. Carnegie	Crosses Western Australia from South to North.	1915	Sir Ernest H. Shackleton (<i>Eng.</i>)	Reports discovery of 200 miles of new coast line in Antarctic Ocean and elimination of South Greenland from map.
1898-1899	De Gerlache (<i>Belg'n</i>)	"Belgica" first ship to winter within Antarctic circle.	1916	Vilhjalmar Stefansson	Members of his expedition report discovery of new lands north of Prince Patrick Land.
1899	Major Gibbons	Explorations in Kongo and Zambezi headwaters.			
1900	Borchgrevink (<i>Eng.</i>)	Reaches lat. 78° 50' S. via Victoria Land.			
1900	Duke of Abruzzi (<i>Italian</i>)	Reaches lat 86° 33' N. via Franz Josef Land.			
1902	Robert E. Peary	Reaches lat. 84° 17' N. and traces the northern limit of the Greenland archipelago.			
1902	Robert F. Scott (<i>Eng.</i>)	Reaches lat. 82° 77' S.			
1903	Anthony Fiala	Lat. 82° 4' N. reached.			
1906	Robert E. Peary (<i>U. S.</i>)	Reaches lat. 87° 6' N. on April 21. Traces north coast of Grant Land and discovers new Crocker Land at about long. 100° W.			
1906	Roald Amundson (<i>Norse</i>)	Achieves Northwest Passage on vessel Gjoa.			
1907	Dr. Mylius Erichsen	Maps the northeast coast of Greenland completing the outline.			
1907	Capt. Arnaud	Crosses Sahara from Algeria south to Gulf of Guinea.			
1908	Capt. J. E. Bernier (<i>English</i>)	Researches in archipelago north of America, taking			

GREAT EVENTS IN THE WORLD'S HISTORY

B. C.

- 1183—Fall of Troy.
- 1004—First Temple at Jerusalem dedicated by Solomon.
- 878—Carthage founded by Dido.
- 776—Beginning of the Olympic era.
- 753—Rome founded by Romulus.
- 623—Birth of Gautama Siddhartha, or Buddha.
- 588—Jerusalem captured by Nebuchadnezzar.
- 538—Babylon taken by Cyrus.
- 536—Restoration of the Jews under Cyrus.
- 509—Expulsion of Tarquinius from Rome.
- 480—Xerxes defeated the Greeks at Thermopylae.
- 360—The Carthaginians form settlements in Spain.
- 332—Alexander the Great conquered Egypt and founded Alexandria.
- 264—Beginning of the First Punic War (lasting 23 years).
- 219—Conquest of Spain by Hannibal.
- 218—Beginning of the Second Punic War (lasting 17 years).
- 206—Scipio expelled the Carthaginians from Spain.
- 183—Hannibal exiled and took poison when about to be surrendered to the Romans.
- 113—Defeat of the Romans by the Teutons and Cymry at Noria.
- 55—Conquest of Britain by Cæsar.
- 47—Burning of the Alexandrian Library.
- 44—Julius Cæsar killed (March 15).
- 4—Birth of Jesus Christ.

A. D.

- 29—Crucifixion of Jesus Christ.
- 64—Nero burned Rome and charged the Christians with the crime.
- 70—Destruction of Jerusalem by Titus.
- 79—Pompeii destroyed.
- 313—Conversion of Constantine to Christianity.
- 325—Constantine convoked the Council of Nice.
- 376—Russia invaded by the Huns.
- 410—Abandonment of Britain by the Romans.
- 569—Birth of Mohammed at Mecca.
- 593—Printing invented by the Chinese.
- 698—Carthage captured and destroyed by Hassan, the Saracen chief.
- 800—Charlemagne crowned Emperor of the West by the Pope (Dec. 25).
- 827—Egbert proclaimed first King of England.
- 896—The Germans under Arnold capture Rome.
- 996—Paris made capital of France.
- 1066—Norman conquest of England.
- 1096—Crusades began to the Holy Land.
- 1099—Jerusalem captured by the Crusaders.
- 1172—Conquest of Ireland by England.
- 1215—Magna Charta granted by King John (June 15).
- 1265—First regular Parliament met in England.
- 1272—Wales subdued and united to England.
- 1314—Union of France and Navarre.
- 1415—France invaded and the battle of Agincourt.
- 1431—Joan of Arc burnt (May 30).
- 1453—Constantinople captured by the Turks.
- 1455—Beginning of the War of the Roses.
- 1462—The Bible first printed at Mentz.
- 1471—First printing press set up by William Caxton.
- 1485—End of the War of the Roses.
- 1492—Discovery of America by Christopher Columbus.
- 1517—Beginning of the Reformation in Germany.
- 1519—Cortez began his conquest of Mexico.
- 1521—Sweden delivered from Denmark by Gustavus Vasa.
- 1534—Henry VIII. abolished the Pope's authority in England.
- 1535—The first English Bible printed.
- 1558—Queen Elizabeth crowned.
- 1565—Beginning of the Netherlands revolt.
- 1572—The St. Bartholomew massacre (Aug. 24) in France, in which 70,000 persons were slain.
- 1588—Defeat of the Spanish Armada by the English fleet.
- 1603—Union formed between England and Scotland (March 24).
- 1616—Death of Shakespeare (April 23).
- 1618—Beginning of the Thirty Years War in Germany.
- 1640—Cromwell's Long Parliament assembled.
- 1649—Charles I. of England beheaded (Jan. 30).
- 1653—Oliver Cromwell proclaimed Protector of England.

A. D.

- 1664—The great plague of London.
- 1666—The great fire in London.
- 1679—Habeas Corpus Act passed in England.
- 1704—Gibraltar captured by the English.
- 1756—Beginning of the Seven Years' War in France. Black Hole suffocation in Calcutta.
- 1759—Canada taken from the French by England.
- 1773—Steam engine perfected by James Watt.
- 1788—Australia first settled (Jan. 26).
- 1789—Beginning of the French Revolution (July 14).
- 1793—The cotton gin invented by Eli Whitney.
- Execution of Louis XVI. of France (Jan. 21), and of Queen Marie Antoinette (Oct. 16).
- 1795—Dismemberment of Poland.
- 1796—Torture of criminals abolished by Catherine in Russia.
- 1796—Vaccination discovered by Jenner.
- 1801—Union formed of Great Britain and Ireland.
- 1804—Bonaparte became Emperor of France.
- 1805—Battle of Trafalgar.
- Battle of Austerlitz.
- 1807—The first steamboat voyage by Robert Fulton.
- 1809—Finland ceded to Russia by Sweden.
- 1812—War declared between Great Britain and the United States.
- Invasion of Russia by Napoleon and the burning of Moscow.
- 1814—Abdication of Napoleon I. (April 5).
- 1815—Battle of Waterloo (June 18).
- 1828—First passenger railroad established in the United States.
- 1835—Invention of the telegraph by Prof. F. B. Morse.
- 1837—Ascension of Queen Victoria to the throne of England.
- 1846—The sewing machine perfected by Elias Howe.
- Repeal of the British Corn Laws.
- Beginning of the war between the United States and Mexico.
- 1851—Gold discovered in Australia.
- 1852—Louis Napoleon became Emperor of France.
- 1853—Beginning of the Crimean War.
- 1854—Battle of Balaklava.
- 1857—The great mutiny in India.
- 1861—The Russian serfs emancipated.
- 1861-1865—Civil War in the United States.
- 1864—The Geneva Convention held, adopting a code for civilized warfare.
- 1867—Emperor Maximilian of Mexico executed.
- Establishment of the Dominion of Canada.
- 1870—Beginning of the Franco-German War.
- 1871—Re-establishment of the German Empire.
- 1881—Assassination of Czar Alexander II. by a bomb (March 13).
- 1882—British occupation of Egypt.
- 1887—\$10,000,000 given by Baron Hirsch for the establishment of Jewish schools in Russia.
- 1899—Brazil became a republic.
- 1894—Chinese-Japanese War began.
- 1897—The Turkish-Greek War.
- 1899—Peace conference between all civilized nations.
- Beginning of the war between England and the South African Republics.
- 1900—The anti-Christian riots in China and the occupation by all foreign powers.
- Assassination of King Humbert of Italy.
- Transvaal annexed to Great Britain.
- 1901—Death of Queen Victoria and the accession of King Edward VII. of England.
- 1902—Peace established in South Africa by Great Britain.
- Tomás Estrada Palma inaugurated as first President of the Cuban Republic.
- 1904—Russia-Japan War began.
- 1905—Earthquakes in India and Italy.
- Russia-Japan War ended.
- Norway dissolved union with Sweden.
- 1906—San Francisco earthquake and fire.
- Morocco conference.
- 1907—King Oscar II. died and King Gustav V. proclaimed in Sweden.

GREAT EVENTS IN THE WORLD'S HISTORY—Cont'd

- 1908—Bosnia and Herzegovina annexed by Austria.
 Bulgaria proclaims independence.
 Belgian Congo annexed by Belgium.
- 1909—Death of Leopold II. and the accession of Albert I. of Belgium.
- 1910—Korea annexed by Japan.
 Death of King Edward VII. and the accession of King George V. of England.
 Union of South Africa proclaimed.
 King Manuel II. deposed by Portugal and republic declared.
 President Diaz of Mexico forced to resign.
- 1911—China revolution began and republic proclaimed.
 Italy declares war on Turkey.
- 1912—King Christian IX. died and King Christian X. proclaimed in Denmark.
 Italian-Turkish War ended.
 Balkan-Turkish War began.
- 1913—Balkan-Turkish War ended.
 King George of Greece assassinated, succeeded by King Constantine.
 Balkan-Bulgarian War began and ended.
- 1914—European War began.
 Great Britain proclaims Sultanate of Egypt.
 Panama Canal opened to World's traffic.
- 1916—Rebellion suppressed in Ireland.
 German merchant submarine crossed Atlantic Ocean without convoy.

PROGRESS OF THE UNITED STATES, 1800-1915

	1800	1850	1900	1910	1915
Area, sq. mi.....	892,135	2,997,119	3,026,789	3,026,789	3,026,789
Population.....	5,308,483	23,191,876	75,994,575	92,174,515	100,264,485
Population per sq. mi.....	6.12	7.88	25.55	30.99	33.71
Wealth.....		\$7,135,780,000	\$88,517,307,000	(a)\$107,104,212,000	(b)\$187,739,071,090
Wealth per capita.....		307.69	1,164.79	(a)1,318.11	(b)1,965
Public debt, less cash in					
Treasury July 1.....	\$82,976,294	63,452,773	1,107,711,257	1,046,449,185	1,090,148,006
Public debt per capita.....	15.63	2.74	14.58	11.35	10.87
Interest bearing debt.....	82,976,294	63,452,774	1,023,478,860	913,317,490	969,759,090
Annual interest charge.....	3,402,601	3,782,393	33,545,130	21,275,602	22,936,642
Interest per capita.....	0.64	0.16	0.44	0.23	0.23
Gold coined.....	310,760	31,981,739	99,272,943	104,723,735	23,967,375
Silver coined.....	224,296	1,866,100	36,345,321	3,740,468	4,114,066
Money in circulation:					
Gold.....			610,806,472	590,877,993	590,133,619
Silver.....			142,050,334	208,016,245	233,913,111
Gold certificates.....	16,000,000	147,395,456	200,733,019	802,754,199	1,072,847,819
Silver certificates.....			408,465,574	478,597,238	481,970,395
U. S. notes (greenbacks).....			313,971,545	334,787,870	332,342,246
National bank notes.....			300,115,111	683,659,535	785,393,047
Miscellaneous currency.....	10,500,000	131,366,526	79,008,942	3,662,525	2,244,687
Total.....	26,500,000	278,761,982	2,055,150,997	3,102,355,605	3,569,219,574
Per capita.....	4.99	12.02	26.93	34.33	35.44
Bank clearings, New York.....			51,964,588,564	102,553,959,069	90,842,707,724
Total United States.....			84,582,450,081	168,986,664,000	162,777,508,000
National banks.....			3,732	7,145	7,605
Capital paid in.....			621,536,461	989,567,114	1,068,519,105
Deposits in National banks.....			2,458,092,758	5,287,216,312	6,611,281,822
In savings banks.....		43,431,130	2,389,719,954	4,070,486,247	4,997,706,013
Depositors in savings banks.....		251,354	6,107,083	9,142,908	11,285,755
Government receipts,					
Ordinary.....	10,848,749	43,592,889	567,240,852	675,511,715	697,910,827
Customs.....	9,080,933	39,668,686	233,164,871	333,683,445	209,786,672
Internal revenue.....	809,397		295,327,927	289,933,519	415,669,646
Government disbursements,					
Ordinary.....	10,813,971	40,948,383	487,713,792	659,705,391	724,763,167
War.....	2,560,879	9,687,025	134,774,768	155,911,706	172,973,092
Navy.....	3,448,716	7,904,725	55,953,078	123,173,717	141,835,654
Interest on public debt.....	3,402,601	3,782,393	40,160,333	21,342,979	22,902,897
Pensions.....	64,131	1,866,886	140,877,316	160,696,416	164,387,942
Merchandise imported.....	91,252,768	173,509,526	849,941,184	1,556,947,430	1,674,169,740
Per capita.....	17.19	7.48	10.93	16.54	16.20
Merchandise exported.....	70,971,780	144,375,726	1,394,483,082	1,744,984,720	2,768,589,340
Per capita.....	13.37	6.23	17.76	18.28	26.70
Farms & farm property.....		3,967,343,580	20,439,901,164	40,991,449,090	Not available
Farm products, value.....			4,717,069,973	8,498,311,413	Not available
Farm animals, value.....		544,180,516	2,228,123,134	5,138,486,000	5,969,253,000
Cattle.....no.		17,778,907	43,902,414	69,080,000	58,329,000
Horses.....no.		4,336,719	13,538,000	21,040,000	21,195,000
Sheep.....no.		21,773,220	41,883,000	57,216,000	49,956,000
Mules.....no.		559,331	2,086,000	4,123,000	4,479,000
Swine.....no.		30,354,213	37,079,000	47,782,000	64,618,000
Production of wool.....lbs.		52,516,959	288,636,621	321,362,750	288,777,000
Wheat.....bu.		100,485,943	522,229,505	635,121,000	1,011,505,000
Corn.....bu.		592,071,104	2,105,102,516	2,886,260,000	3,054,533,000
Cotton.....bales	153,509	2,454,442	10,102,102	11,568,334	11,161,000
Beet Sugar.....lbs.			163,458,075	1,024,938,000	1,444,108,000
Cane Sugar.....lbs.		247,577,000	322,549,011	750,400,000	493,239,400
Gold.....\$		50,000,000	79,171,000	96,269,100	98,891,100
Silver.....\$		50,900	35,741,100	30,854,500	35,019,628
Coal.....long tons		6,266,233	240,789,310	447,853,909	*458,504,890
Copper.....long tons		650	270,588	482,214	513,454
Petroleum.....gals.			2,672,062,218	8,801,404,416	11,162,026,470

(a) 1904.

(b) 1912.

* 1914.

PROGRESS OF THE UNITED STATES, 1800-1915—Cont'd

	1800	1850	1900	1910	1915
Pig iron.....long tons		563,755	13,789,242	27,303,567	29,916,213
Steel.....long tons			10,188,329	26,094,919	*23,513,030
Iron and steel, and manu- factures thereof im- ported.....\$		20,145,067	20,478,728	30,807,725	22,702,704
exported (domestic)....	52,144	1,953,702	121,913,548	179,133,186	225,861,387
Manufactures (miscellane- ous) exported, domestic..		23,362,600	499,976,695	775,061,067	1,163,327,840
Manufacturing establish- ments.....no.		123,025	207,514	268,491	Not available
Value of products.....		1,019,106,616	11,406,926,701	20,672,081,870	Not available
Tin plates imported.....lbs.			147,963,804	154,566,599	10,642,237
Tin plates produced.....lbs.			677,969,600	1,619,003,000	*2,085,980,000
Cotton exported.....lbs.	17,789,803	635,381,604	3,100,583,188	3,206,708,226	4,403,578,499
Silk (raw) imported.....lbs.			13,073,718	23,457,223	31,052,674
Rubber (crude) import- ed.....lbs.			49,377,138	101,044,681	172,068,428
Sugar consumed.....lbs.			4,477,174,441	7,360,130,811	8,626,793,328
Per capita.....			58.91	79.90	86.00
Railways operated, miles..			108,964	249,992	*263,547
Passengers carried.....no.			576,831,251	971,683,199	*1,053,138,718
Passengers carried.....miles			16,038,076,200	32,338,496,329	*35,258,497,509
Freight carried 1 mi., tons			141,596,551,161	255,016,910,451	288,319,890,210
Revenue per ton per mile.....c.			729.	753.	733
Passenger cars in service..			34,713	47,095	53,466
All other cars in service..			1,416,125	2,243,236	2,450,356
Vessels built, American, gross tons	106,261	279,255	393,790	342,068	225,122
Foreign trade, gross tons.	670,573	1,585,711	826,694	791,825	1,871,543
Domestic trade and cod and mackerel fisheries.g. t.	301,919	1,949,743	4,338,145	6,716,257	6,517,886
On Great Lakes.....g. t.		198,266	1,565,587	2,895,102	2,818,009
Passing through Sault Ste. Marie Canal, net tons			22,315,834	40,856,123	56,399,147
Post-Office Dept., Revenue \$	280,806	5,490,985	102,354,579	224,128,658	287,248,165
Post-offices.....no.	903	18,417	76,688	59,580	56,380
Patents issued.....no.		993	26,490	35,930	44,934
Immigrants arrived.....no.		369,980	448,572	1,041,570	326,700
Public school salaries.....\$			137,687,746	125,915,170	323,610,915
Commercial failures.....no.			10,774	12,652	22,156
Liabilities.....\$			138,495,673	201,757,097	302,280,148
Telegrams sent.....no.			63,167,783	75,135,405	(b) 90,000,000Est.
Newspapers and periodicals published.....no.		2,526	20,806	22,725	23,167
* 1914.			† Teachers' salaries only.	(b) 1912.	

CENTER OF POPULATION FROM 1790-1910

Census year	North latitude	West longitude	Approximate location	Movement in miles
1790.....39	16	30	76 11 12 .. 23 miles east of Baltimore, Md.	
1800.....39	16	6	76 56 30 .. 18 miles west of Baltimore, Md.	
1810.....39	11	30	77 37 12 .. 40 miles northwest by west of Washington, D. C.	40.6
1820.....39	5	42	78 33 0 .. 16 miles north of Woodstock, Va.	36.0
1830.....38	57	54	79 16 54 .. 19 miles west-southwest of Moorefield, W. Va.*	50.5
1840.....39	2	0	80 18 0 .. 16 miles south of Clarksburg, W. Va.*	40.4
1850.....38	59	0	81 19 0 .. 23 miles southeast of Parkersburg, W. Va.*	55.0
1860.....39	0	24	82 48 48 .. 20 miles south of Chillicothe, O.	54.8
1870.....39	12	0	83 35 42 .. 48 miles east by north of Cincinnati, O.	80.6
1880.....39	4	8	84 39 40 .. 8 miles west by south of Cincinnati, O.	44.1
1890.....39	11	56	85 32 53 .. 20 miles east of Columbus, Ind.	58.1
1900.....39	9	36	85 48 54 .. 6 miles southeast of Columbus, Ind.	48.6
1910.....39	10	12	86 32 20 .. In the city of Bloomington, Ind.	14.6
				39.0

*West Virginia formed part of Virginia until 1863.

UNITED STATES COINAGE MINTS AND ASSAY OFFICES

Coinage mints of the United States are located in Philadelphia, Pa.; San Francisco, Cal.; and Denver, Col. The government assay offices are in New York, N. Y.; Carson, Nev.; Denver, Col.; Boise, Idaho; Helena, Mont.; Charlotte, N. C.; St. Louis, Mo.; Deadwood, S. D.; Seattle, Wash.; New Orleans, La.; and Salt Lake City, Utah. The mint in Philadelphia was established in 1792 and the others as follows: San Francisco, 1852, and Denver, 1904.

THE PAN AMERICAN UNION

The Pan American Union was organized for the purpose of promoting friendship and commerce between the twenty-one American Republics, each of which contributes to the maintenance of the institution in proportion to its population. The building in which the Union is housed at Washington stands upon land provided by the United States at a cost of \$200,000. The building, costs \$1,000,000 three-fourths of which was paid by Andrew Carnegie, and one-fourth by the twenty Republics of Latin-America.

DEVELOPED AND POTENTIAL WATER POWER IN THE UNITED STATES

Prior to the discovery of electrical transmission of power over long distances, water power could be utilized only at the power site. This limited its development in most cases to comparatively small units, and almost exclusively to manufacturing enterprises. The introduction of electric-power transmission not only provided a means of supplying distant manufacturing and domestic demands, but also opened up an entirely new power field, namely, the operation of street railways and lighting plants, and enormously increased the relative importance of water power. Thus the development of water power (based on installed wheel capacity) for railway and lighting purposes increased from 487,000 h.p. in 1902 to 1,441,000 h.p. in 1907 (the latest date for which statistics are available), or by nearly 200 per cent. In manufacturing industries, where transmission by electricity is infrequent, water-power development during the period 1900-1905 increased by only 11 per cent.

Developed Water Power in Various States*

State	Developed and under construction		Undeveloped	Total
	Commercial	Manufacturing		
	<i>h.p.</i>	<i>h.p.</i>	<i>h.p.</i>	<i>h.p.</i>
United States ...	2,961,549	1,054,578	2,638,528	6,654,655
No. Atlantic States:				
Maine.....	65,360	168,338	100,000	333,698
New Hampshire.....	16,450	103,658	13,500	133,608
Vermont.....	53,648	40,197	44,460	138,305
Massachusetts.....	76,697	53,922	14,020	145,329
Connecticut.....	32,000	15,519	4,000	51,519
New York.....	398,058	315,313	193,093	906,464
New Jersey.....	7,200	.....	.....	7,200
Pennsylvania.....	169,632	.....	13,142	182,774
So. Atlantic States:				
Virginia.....	33,700	17,620	44,800	96,120
West Virginia.....	5,250	16,150	1,250	22,650
No. Carolina.....	82,960	14,050	61,425	158,435
So. Carolina.....	135,040	47,457	95,585	278,082
Georgia.....	126,927	12,350	286,350	425,627
Florida.....	5,000	.....	.....	5,000
No. Central States:				
Ohio.....	4,025	.....	6,675	10,700
Indiana.....	10,425	4,250	1,000	15,675
Illinois.....	38,460	12,751	62,100	113,311
Michigan.....	102,682	30,420	117,650	250,752
Wisconsin.....	96,799	106,153	91,400	294,352
Minnesota.....	95,815	72,200	101,600	269,615
Iowa.....	151,400	.....	151,000	302,400
So. Dakota.....	5,000	.....	3,167	8,167
Kansas.....	6,800	.....	200	7,000
So. Central States:				
Tennessee.....	62,000	.....	3,862	65,862
Alabama.....	6,000	10,450	.....	16,450
Western States:				
Montana.....	139,260	.....	105,700	244,960
Idaho.....	52,100	.....	42,300	94,400
Colorado.....	69,690	.....	59,000	128,690
Arizona.....	16,200	.....	.....	16,200
Utah.....	52,700	.....	2,600	55,300
Nevada.....	14,200	.....	24,000	38,200
Washington.....	300,510	.....	115,700	416,210
Oregon.....	95,777	.....	143,600	239,377
California.....	429,467	6,000	732,749	1,168,216
Other States, not enumerated.....	4,317	7,780	2,000	14,097

*Ownership of less than 1,000 h.p. excluded. States omitted from this table had no concerns reporting developed water powers of 1,000 h.p. or over.

†Embracing one concern in Missouri and four each in Maryland and Rhode Island.

From the above table it is seen that the total horsepower owned by concerns reporting to the Bureau is 6,654,655, of which 4,016,127 h.p. is developed and 2,638,528 h.p. undeveloped. California leads with 14.5 per cent. of the "commercial power," developed and under construction, followed by New York with 13.4 per cent, Washington with 10.1 per cent, Pennsylvania with 5.7 per cent, Iowa with 5.1 per cent, Mon-

tana with 4.7 per cent, South Carolina with 4.6 per cent, Georgia with 4.3 per cent. Ohio has only about 4,000 h.p. developed.

The five states of Maine, New Hampshire, Vermont, Massachusetts and Connecticut have 36 per cent of the developed manufacturing power and New York has 30 per cent, thus giving to these six States 66 per cent of the total. By far the greatest amount of undeveloped power is found in California. Georgia is second and New York third.

Potential Water Power in Various States*

United States.....	Potential horsepower on basis of 75 per cent efficiency	
	Minimum	Assumed maximum
United States.....	26,736,000	51,398,000
North Atlantic States:		
Maine.....	443,000	809,000
New Hampshire.....	135,000	246,000
Vermont.....	94,000	172,000
Massachusetts.....	118,000	228,000
Rhode Island.....	6,000	13,000
Connecticut.....	72,000	137,000
New York.....	1,037,000	1,698,000
New Jersey.....	44,000	106,000
Pennsylvania.....	276,000	684,000
South Atlantic States:		
Delaware.....	5,000	11,000
Maryland.....	43,000	122,000
District of Columbia.....	5,000	11,000
Virginia.....	492,000	870,000
West Virginia.....	381,000	1,051,000
North Carolina.....	578,000	875,000
South Carolina.....	460,000	677,000
Georgia.....	374,000	627,000
Florida.....	8,000	13,000
Western States:		
Montana.....	2,749,000	4,331,000
Idaho.....	1,162,000	2,567,000
Wyoming.....	773,000	1,305,000
Colorado.....	842,000	1,697,000
New Mexico.....	100,000	439,000
Arizona.....	893,000	1,698,000
Utah.....	742,000	1,318,000
Nevada.....	172,000	276,000
Washington.....	4,932,000	8,647,000
Oregon.....	3,148,000	6,613,000
California.....	3,424,000	7,818,000

* North and South Central States omitted.

Approximately 11,500,000 h.p. or 43 per cent of the total estimated minimum power of the country is found in the States of California, Oregon, and Washington alone. The great central basin of the United States has practically no water power, the only plant of any consequence being at Keokuk, Iowa, where a dam has been built across the Mississippi which is capable of developing 300,000 horsepower.

Water power is unlike most other natural resources in that it is not diminished by use, nor is it conserved by non-use. Coal which is not used to-day remains to be used hereafter, but the energy of water which is allowed to flow by unused either increases or decreases the future supply, but is irretrievably lost. Our supply of coal—the principal source of energy—while vast, is not unlimited. The utilization of water power results in the saving of coal for future use. In other words, the real waste of water power is its non-use, while its development effects a conservation, not only of water power, but of our fuel supply as well.

In some parts of the country the estimate of coal consumed per horsepower per year ranges from ten to fourteen tons, while the same unit of power elsewhere within the United States calls for the expenditure of 17½ tons. If we take a fair average and make the allowance nine tons annually for each horsepower, 6,000,000 h.p. developed by water would mean a yearly reduction of the tax upon our mines of 54,000,000 tons of coal, or one-tenth of the coal now dug from the earth within our boundaries.

NATIONAL BANKING AND CURRENCY LAW

On December 23, 1913, Congress passed a new Banking and Currency law which is aimed to provide a more flexible currency to meet our needs as a growing nation.

FEATURES OF THE LAW FEDERAL RESERVE BOARD

The Federal Reserve Board consists of seven members, two of whom are the Secretary of the Treasury and the Comptroller of the Currency. The others are appointed by the President. Each member's salary is \$12,000. Those appointed are:

- A. C. Miller of California—10 year term.
- W. F. C. Harding of Alabama—8 year term.
- Fredric A. Delano of Illinois—6 year term.
- Paul M. Warburg of New York—4 year term.
- Charles S. Hamlin of Massachusetts—10 year term.
- Mr. Harding is Governor of the Board and Mr. Warburg is Vice-Governor.
- Mr. Hamlin, the former Governor of the Board was re-appointed on Aug. 10, 1916 for 10 years.

POWERS OF THE FEDERAL RESERVE BOARD

To examine Federal Reserve Banks and Member Banks.
To permit or require Federal Reserve Banks to re-discount paper of other Federal Reserve Banks at rates to be fixed by this Board.

To suspend for stated periods reserve requirements and to establish a tax on decreasing reserves.

To regulate the issue of Notes.
To add to or reclassify Reserve and Central Reserve Cities.
To suspend or remove officials of Federal Reserve Banks.
To require writing off doubtful assets of Federal Reserve Banks.

To suspend, liquidate or reorganize Federal Reserve Banks violating this Act.

To require bonds of Federal Reserve Agents; to perform all duties, etc., specified or implied in this Act, and to make all necessary rules and regulations.

To grant to national banks when not in contravention of state law the right to act as trustee, executor, administrator or registrar of stocks and bonds.

To exercise functions of Clearing House for Federal Reserve Banks, or may designate a Federal Reserve Bank to do the same, and may require each Federal Reserve Bank to so act for its Member Banks.

To levy upon Federal Reserve Banks semi-annual assessments sufficient to meet estimated expenses of the Board.

To exercise general supervision over Federal Reserve Banks. To define character of bills eligible for discount by Federal Reserve Banks, and to limit and regulate rediscounts and acceptances.

May establish rate of interest to be charged Federal Reserve Banks on Federal Reserve Notes issued.

May fix the charges to be collected by Member Banks for checks cleared through Federal Reserve Banks.

FEDERAL RESERVE BANKS

There are 12 Federal Reserve Banks in a like number of districts known as Federal Reserve Districts covering the entire continental United States. These 12 Banks are located as follows:

- | | |
|------------------|--------------------|
| 1. Boston. | 7. Chicago. |
| 2. New York. | 8. St. Louis. |
| 3. Philadelphia. | 9. Minneapolis. |
| 4. Cleveland. | 10. Kansas City. |
| 5. Richmond. | 11. Dallas. |
| 6. Atlanta. | 12. San Francisco. |

Each of the Federal Reserve Banks is controlled by 9 directors elected or appointed as follows:

- 3—Elected by Member Banks representing banks.
- 3—Elected by Member Banks representing business interests of District—directors, officers or employees of any bank not eligible.
- 3—Appointed by Federal Reserve Board, one a person of banking experience, to be chairman and designated as "Federal Reserve Agent." Directors, officers, employees or stockholders of any bank not eligible.

These banks must each have a capital of at least \$4,000,000. Shares are \$100 par value, tax exempt, to be subscribed by Member Banks in District, and under certain conditions by U. S. Treasury, and by general public, subscriptions or holdings by latter not to exceed \$25,000 by any individual, co-partnership or corporation. Only stock owned by Member Banks can be voted; such stock not to be transferred nor hypothecated.

Earnings:—6% cumulative dividends; remainder— $\frac{1}{2}$ to surplus up to 40% of paid-in capital, after this all earnings to U. S. as a franchise tax, to be applied either to gold reserve, or to retirement of outstanding U. S. bonds.

They must maintain reserves in gold or lawful money of at least 35% of its deposits, in addition to 40% reserve against notes, but the Board has the right to waive this reserve in emergencies.

MEMBER BANKS

Every National Bank must, and eligible State Institutions may, at any time join the Federal Reserve Bank in their District, by subscribing to stock a sum equal to 6% of their paid-up capital and surplus, one-sixth to be payable on call, one-sixth within three months, and one-sixth within six months thereafter, the remainder on call. State Banks may become National Banks. National Banks are no longer required to deposit U. S. bonds with the Treasurer.

The law is very strict regarding the reserves to be maintained by the Member Banks. The new Act has a tax—a kind of sliding scale—which it taxes a bank that falls below its requirements—but the system is so flexible as to enable the banking system always to meet emergencies.

BASIS OF OUR NEW CURRENCY

Our previous bank currency was issued on bonds of the United States Government as a basis. The more bonds we issued the more currency or money there might be in circulation, but the poorer was our credit as a Nation. The more it owed, the more money we had in circulation. The more bonds or indebtedness the Government paid off, the less currency we had, and consequently in times when the Government was the soundest financially and was paying off its debts the fastest, the less notes the banks could issue for the development of the country.

The new form of currency is based—not on government bonds—but on credit. By the old system the banks used to invest their money at home, among their local people, when they could do so advantageously. But if there was not a demand for all their money at home, they were accustomed to send their surplus funds to their reserve city banks in the large centers like New York or Chicago. These reserve city banks paid two per cent. on the sums thus deposited. Or else, the local banks might send some of their funds to their correspondent banks with instructions to lend the money 'on call' at current money market rates—which means that frequently the local banks could get a higher rate of interest for the money in Wall Street than at home—with the deterrent effect upon local industry.

These funds were then loaned out on 'liquid' collateral—securities that could be converted rapidly into cash. Most of these liquid securities are New York Stock Exchange stocks or bonds. Lending money in this way, gave rise to speculation in Stock Exchange securities by Stock Exchange operators. The result of such speculation was to make a few men immensely rich and the banks had no control over the situation.

The new legislation undoes this centralization of power and makes the banking system a unit under the Federal Reserve Board.

These 12 Reserve Banks have a paid up capital of about \$54,195,000. If reserve is low in one reserve center it will be shifted from one or more of the others in order to keep a suitable balance for the benefit of business, and to prevent a stringency of money or credit in any one section.

New Currency Act will stop money panics by having all the resources of the country to apply in case of stress, with the banks freed from reserve requirements if necessary, and by having all the banks united as one unit to stop a run or a panic in any one portion of the country before it spreads.

The United States has today over 30,000 banks of all kinds, representing an average of one to every 3,300 inhabitants. Of these banks 19,248 are organized under State laws, while 3,246 are designated as non-reporting banks by the Treasury Department. The remaining 7,613, organized under the old national banking act, stand as the nucleus of the new Federal reserve system.

When the old national banking law was enacted in 1863, the banking power of the United States was only \$1,137,900,000. Today it is over \$25,397,100,000.

HOW TO GET A COPYRIGHT

FOR WORKS REPRODUCED IN COPIES FOR SALE.—1. Publish the work with the copyright notice. The notice may be in the form "Copyright, 19... (year date of publication), by..." (name of copyright proprietor)." See below for additional information as to the form and place of the notice. The date in the copyright notice should agree with the year date of publication.

2. Promptly after publication, send to the Copyright Office, Library of Congress, Washington, D. C., two copies of the best edition of the work, with an application for registration and a money order payable to the Register of Copyrights for the statutory registration fee of \$1. As to special fee for registration of photographs, see below.

In the case of books the copies deposited must be accompanied by an affidavit, under the official seal of an officer authorized to administer oaths, stating that the type-setting, printing, and binding of the book have been performed within the United States. Affidavit and application forms will be supplied by the Copyright Office on request.

This affidavit is not required in the case of a book of foreign origin in a language or languages other than English, as such books are not required to be manufactured in the United States.

In the case of contributions to periodicals send one complete copy of the periodical containing the contribution with application and fee. No affidavit is required.

FOR WORKS NOT REPRODUCED IN COPIES FOR SALE.—Copyright may also be had of the works of an author, of which copies are not reproduced for sale, by the deposit, with claim of copyright, of one complete copy of such work if it be a lecture or similar production or a dramatic musical or dramatic-musical composition; of a title and description, with one print taken from each scene or act, if the work be a motion-picture photoplay; of a photographic print, if the work be a photograph; of a title and description, with not less than two prints taken from different sections of a complete motion picture; if the work be a motion picture other than a photoplay; or of a photograph or other identifying reproductions thereof, if it be a work of art or a plastic work or drawing. But the privilege of registration of copyright secured hereunder shall not exempt the copyright proprietor from the deposit of copies, where the work is later reproduced in copies for sale.

FEES.—The statutory fee for registration of any work is one dollar, including a certificate of registration under seal. In the case of a photograph, if a certificate is not demanded the fee is fifty cents. In the case of several volumes of the same book deposited at the same time, only one registration at one fee is required.

NOTICE OF COPYRIGHT IN PRINTED WORKS.—The law prescribes that the copyright notice shall consist either of the word "Copyright" or the abbreviation "Copr.", accompanied by the name of the copyright proprietor, and the year in which publication was made. In the case, however, of copies of works specified in subsections (F) to (K) inclusive, of section 5 of the copyright act namely, maps, works of art, reproductions of works of art, drawings or plastic works, photographs, and prints or pictorial illustrations, the notice may consist of the letter C inclosed within a circle, accompanied by the initials,

monogram, mark, or symbol of the copyright proprietor: *Provided*, That on some accessible portion of such copies or of the margin, back, permanent base, or pedestal, or of the substance on which such copies shall be mounted, his name shall appear. But in the case of works in which copyright is subsisting when this act shall go into effect, the notice of copyright may be either in one of the forms prescribed herein or in one of those prescribed by the Act of June eighteenth, eighteen hundred and seventy-four.

In the case of a periodical the notice should be applied either upon the title-page, or upon the first page of text of each separate number, or under the title heading; if a musical work, upon its title page or the first page of music.

One notice of copyright in each number of a newspaper or periodical published suffices.

Where the copyright proprietor has sought to comply with the law with respect to notice, the omission of such notice by mistake from a particular copy or copies shall not invalidate the copyright or prevent recovery for infringement against any person who, after actual notice of the copyright, begins an undertaking to infringe it, but shall protect an innocent infringer who has been misled by the omission of the notice against the recovery of damages.

REMITTANCES should be made by money order, payable to the Register of Copyrights. All remitters are respectfully urged to send an identifiable remittance. Postage stamps or checks should not be sent as fees.

APPLICATION FORMS.—The Copyright office has issued the following application forms, which should be used when applying for copyright registration:

- A1. Book by citizen or resident of the U. S.
- A1 for. Book by citizen or resident of a foreign country, but manufactured in the U. S.
- A2. Edition printed in the United States of a book originally published abroad in English.
- A3. Book by foreign author in foreign language.
- A4. Ad interim. Book published abroad in the English language.
- A5. Contribution to a newspaper or periodical.
- B1. Periodical. Registration of single issue.
- B2. Periodical. General application and deposit.
- C. Lecture, sermon, or address.
- D1. Published dramatic composition.
- D2. Dramatic composition not reproduced for sale.
- D3. Dramatic-musical composition.
- E1. Published musical composition.
- E2. Musical composition not reproduced for sale.
- F. Published map.
- G. Work of art (painting, drawing, or sculpture); or model or design for a work of art.
- H. Reproduction of a work of art.
- I. Drawing or plastic work of a scientific or technical character.
- J1. Photograph published for sale.
- J2. Photograph not reproduced for sale.
- K. Print or pictorial illustration.
- L. Motion-picture photoplays;
- M. Motion pictures other than photoplays.

INFRINGEMENT OF COPYRIGHT

If any person shall infringe the copyright in any work protected under the copyright laws of the United States, such person shall be liable:

- (a) To an injunction restraining such infringement.
- (b) To pay to the copyright proprietor such damages as the copyright proprietor may have suffered due to the infringement as well as all the profits which the infringer shall have made from such infringement, and in proving profits the plaintiff shall be required to prove sales only and the defendant shall be required to prove every element of cost which he claims, or in lieu of actual damages and profits such damages as to the court shall appear to be just and in assessing such damages the court may, in its discretion, allow the amounts as hereinafter stated, but in case of a newspaper reproduction of a copyrighted photograph such damages shall not exceed the sum of \$200 nor be less than the sum of \$50, and in the case of the infringement of a undramatized or non-dramatic work by means of motion pictures, where the infringer shall show that

he was not aware that he was infringing, and that such infringement could not have been reasonably foreseen, such damages shall not exceed the sum of \$100; and in the case of an infringement of a copyrighted dramatic or dramatic-musical work by the maker of motion pictures and his agencies for distribution thereof to exhibitors, where such infringer shows that he was not aware that he was infringing a copyrighted work and that such infringements could not reasonably have been foreseen, the entire sum of such damages recoverable by the copyright proprietor from such infringing maker and his agencies for the distribution to exhibitors of such infringing motion picture shall not exceed the sum of \$5,000 nor be less than \$250, and such damages shall in no other case exceed the sum of \$5,000 nor be less than the sum of \$250, and shall not be regarded as a penalty. But the foregoing exceptions shall not deprive the copyright proprietor of any other remedy given him under this law, nor shall the limitation as to the amount of recovery apply to infringements

occurring after the actual notice to a defendant, either by service of process in a suit or other written notice served upon him.

1. In the case of a painting, statue, or sculpture, \$10 for every infringing copy made or sold by or found in the possession of the infringer or his agents or employers:

2. In the case of any work enumerated in section five of the Copyright Act, except a painting, statue or sculpture, \$1 for every infringing copy made or sold by or found in the possession of the infringer or his agents or employees:

3. In the case of a lecture, sermon, or address, \$50 for every infringing delivery:

4. In the case of a dramatic or dramatico-musical or a choral or orchestral composition, \$100 for the first and \$50 for every subsequent infringing performance; in the case of other musical compositions \$10 for every infringing performance:

(c) To deliver up on oath, to be impounded during the pendency of the action, upon such terms and conditions as the court may prescribe, all articles alleged to infringe a copyright:

(d) To deliver up on oath for destruction all the infringing copies or devices, as well as all plates, moulds, matrices or other means for making such infringing copies as the court may order:

(e) Whenever the owner or a musical copyright has used or permitted the use of the copyrighted work upon the parts of musical instruments serving to reproduce mechanically the musical work, then in case of infringement of such copyright by the unauthorized manufacture, use, or sale of interchangeable parts, such as disks, rolls, bands, or cylinders for use in mechanical music-producing machines adapted to reproduce the copyrighted music, no criminal action shall be brought, but in a civil action an injunction may be granted upon such terms as the court may impose, and the plaintiff shall be entitled to recover in lieu of profits and damages a royalty provided also that whenever any person in the absence of a license agreement, intends to use a copyrighted musical composition upon the parts of instruments serving to reproduce mechanically the musical work, relying upon the compulsory license provision of this act, he shall serve notice of such intention, by registered mail, upon the copyrighted proprietor at his last address disclosed by the records of the copyright office, sending to the copyright office a duplicate of such notice; and in case of his failure so to do the court may, in its discretion, in addition, award the complainant a further sum, not to exceed three times the amount provided by section one, subsection (e), of the Copyright Act, by way of damages, and not as a penalty, and also a temporary injunction until the full award is paid.

THE NOBEL PRIZES

Five prizes are annually awarded from the fund of \$9,000,000 bequeathed for the purpose by Alfred Bernard Nobel, a Swedish inventor, who died in 1896. From the invention and manufacture of dynamite and smokeless powder he made his fortune. The prizes average about \$40,000 each annually, and with gold medals and diplomas, are awarded on December 10 of each year, the anniversary of the death of the founder. The sum available for the prizes is divided into five equal parts and distributed as follows: "One to the person who, in the domain of physics, has made the most important discovery or invention, one to the person who has made the most important chemical discovery or invention, one to the person who has made the most important discovery in the domain of medicine or physiology, one to the person who in literature has provided the most excellent work of an idealistic tendency, and one to the person who has worked most or best for the fraternization of nations and the abolition or reduction of standing armies, and in the calling and propagating of peace congresses."

The Swedish Academy of Science awards the prizes in physics and in chemistry; the Caroline Institute in Stockholm that in medicine; the Swedish Academy in Stockholm that in literature; and a committee of five members, chosen by the Norwegian Storting (legislature), the peace prize. The Nobel Institute began its work in 1900. It is composed of four members, who must be Swedes, elected for two years each by deputies selected by the four institutions named, and a fifth, chosen by the Swedish Government, who is president of the Institute. The Institute has the care of the funds and hands over to the awardees the amounts to be given as prizes. Within six months after the awards the recipients, except of the peace prize, are expected to lecture before the institution charged with the award.

The prizes for 1916 and those following will be reduced \$5,000, representing the amount of the new Swedish Defense tax.

The awards for 1915 were as follows:

Medicine—(1914) Dr. Robert Barany of Vienna University. No prize for 1915.

Physics—Thomas A. Edison, U. S. and Nikola Tesla.

Chemistry—Prof. Theodor Svedberg.

Literature—Romain Roland, France; Hendrik Pontoppidan, Trolas Lund, Denmark and Verner von Heidenstam, Sweden.

Peace—No prize awarded since 1913.

Up to the present time six Americans have received the Nobel prizes. They are Prof. Albert A. Michelson, of the University of Chicago, who was awarded the prize for physics in 1907; Theodore Roosevelt, who received the peace prize in 1906, in recognition of his efforts to end the war between Russia and Japan, Dr. Alexis Carrel, for medicine and Elihu Root for peace in 1912. Prof. Theodore W. Richards of Harvard University for Chemistry in 1914 and Thomas A. Edison who received the prize for Physics in 1915.

THE RHODES SCHOLARSHIPS

The Rhodes Scholarships at Oxford University, Eng., were established under the will of Cecil Rhodes, the South African millionaire. He died at Cape Town, March 26, 1902, and his will, dated July 1, 1899, directed the trustees to apply a part of his fortune, about \$10,000,000, to the establishment of a fund for the support of a certain number of scholarships to cover the cost of a three years' course at Oxford. He allotted 100 to the United States (two to each State and Territory), 15 to Germany, and from 3 to 9 each to the several British Colonies. In their award account was to be taken not only of scholastic and literary attainments, but also of qualities of manhood, truth, courage, devotion to duty, generosity, kindness, moral force of character, desire to serve the public, and success in athletic sports. The methods of choosing the scholars vary. In most of the States of this country the choice is left to a Committee of Selection. This system also prevails in four Canadian provinces, and in Bermuda, Jamaica, Newfoundland, New Zealand, and Australia. In Cape Colony the scholars are chosen by the schools to which the scholarships are assigned, and in Germany the students are named by the Emperor. In a few of the States in this country and some Canadian provinces the choice is made in turn by the leading universities. In this country candidates must have completed in a satisfactory manner at least two years' work in a college of liberal arts and sciences. The limits of age are 19 and 25. The student must be a U. S. citizen with five years' domicile and be unmarried. The annual allowance to each student is £300 (about \$1,500), payable in quarterly instalments, and is expected to meet the expenses of the year for both term time and vacation. The first payment is not made until a student has gone into college residence at Oxford. Qualifying examinations, which are not competitive, are held in October in some states, every year. The next examinations will be in 1917. Information in regard to particulars can be secured at any college, or from F. J. Wylie, Oxford Secretary to the Rhodes Trustees, Oxford, Eng., or the Secretary to the Rhodes Trust, Seymour House Waterloo Place, London, S. W.

NEW METHOD OF ELECTING RHODES SCHOLARS

In July 1914, the Rhodes Trustees announced a change in the method of electing scholars for the United States. Instead of, as heretofore, choosing from the 48 states in two consecutive years and skipping the third year, the scholars will be chosen yearly in future from two-thirds of the states. The sixteen states to be omitted at the 1917 examinations are: California, Washington, Oregon, Colorado, Nebraska, Kansas, Minnesota, Wisconsin, Michigan, Missouri, Iowa, Georgia, Texas, Alabama, Arkansas and Mississippi. From those states scholars will be selected in 1918, and sixteen other states will be omitted.

MARRIAGE AND DIVORCE LAWS

A marriage license is a prerequisite of marriage in all states and territories.

The age at which minors are capable of marrying varies considerably. For males it is 14 in Kentucky, Louisiana, New Hampshire, Rhode Island and Virginia; 15 in Kansas and Missouri; 16 in District of Columbia, Iowa, North Carolina, Texas and Utah; 17 in Alabama, Arkansas and Georgia; 18 in Arizona, California, Idaho, Indiana, Indian Territory,* Michigan, Minnesota, Montana, Nebraska, Nevada, New Mexico, New York, North Dakota, Ohio, Oklahoma, Oregon, South Dakota, West Virginia, Wisconsin and Wyoming; 21 in Washington. The age at which female minors may marry is only 12 in Kansas, Kentucky, Louisiana, Missouri, Rhode Island and Virginia; it is 13 in New Hampshire; 14 in Alabama, Arkansas, Delaware, Georgia, Iowa, North Carolina, Texas and Utah; 15 in California, Minnesota, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota and Wisconsin; 16 in Arizona, Indiana, Michigan, Montana, Nebraska, Nevada, Ohio, West Virginia and Wyoming; 18 in Idaho, New York and Washington. No age is fixed by statute for males or females in Colorado, Connecticut, Delaware, Florida, Maine, Maryland, Massachusetts, New Jersey, Pennsylvania, Tennessee or Vermont.

The age for males below which parental consent to marriage is required is 16 in Tennessee; 18 in North Carolina and Idaho; 21 in Alabama, Arizona, Arkansas, California (not required if man has been previously married), Colorado, Connecticut, Delaware, District of Columbia, Florida, Indian Territory,* Indiana, Iowa, Kentucky, Kansas, Louisiana, Maine (if parent or guardian is living in the state), Maryland, Massachusetts, Minnesota (unless male has been married before), Mississippi, Missouri, Montana, Nebraska, Nevada, New Jersey, New Mexico, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Dakota, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin (who have not married before, and have a parent or guardian residing in the state), and Wyoming. Parental consent for males is not required in Georgia, Michigan, New Hampshire or New York. Girls under 16 must have parental consent in Tennessee; 18 is the age below which parental consent is required for females in Alabama, Arizona, Arkansas, California (unless applicant has been previously married), Colorado, Delaware, District of Columbia (unless previously married), Georgia, Idaho, Indian Territory,* Indiana (except that where parent or guardian does not live in the state, if the girl has resided within the county where license is sought for one month preceding such application, license may issue), Iowa, Kansas, Maine (if parents or guardians live in the state), Massachusetts, Michigan (unless married before), Minnesota, Mississippi, Nebraska, Nevada, New Jersey, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, South Dakota, Texas, Utah, Vermont, Washington and Wisconsin (if the person has not had a former husband, and has a parent or guardian residing in the state.) Oregon provides that if either party has no parent or guardian resident in the state, and the female has resided within the county where the license is applied for for the six months next preceding such application, the license may issue, if otherwise proper, without parental consent. Girls below 21 must have parental consent in Florida, Kentucky, Louisiana, Montana, Pennsylvania, Rhode Island, Virginia, West Virginia and Wyoming. No parental consent is required for girls in New Hampshire or New York.

Kansas has a law which provides that no probate judge shall issue a license authorizing the marriage of any male person under the age of 21, or female person under the age of 18 years, except with the consent of his or her father, mother or guardian, * * * and where such consent shall have been given, no license shall be issued to any male person under 17 or female under 15 without the consent of the probate judge in addition thereto.

Marriage is prohibited in many states between whites and persons of negro descent, between whites and Indians, between first cousins, and between step-relatives. Some states prohibit the marriage of epileptics and imbeciles. Each state has prohibited degrees of relationship between which marriages are void.

Divorce is permitted for various causes in all states of the Union except South Carolina, which has no divorce law. Statistics show that there are more divorces in cities than in the coun-

try, and that more divorces are granted in the western than in the eastern states. Although occasionally checked or retarded by commercial crises, periods of business depression, or other causes, there is a marked increase in the divorce rate. In only four years—1870, 1884, 1894 and 1902—was the divorce rate for the country as a whole lower than in the preceding year, while the rate was greater than the preceding year in 29 cases. The upward movement, although varying in intensity in different sections, has been general throughout the country. Statistics showing occupations of divorced men place at the head of the list actors, professional showmen, musicians and teachers of music, commercial travelers, telegraph and telephone operators, physicians and surgeons; at the end of the list come teamsters, clergymen and agricultural laborers. Figures thus confirm the popular impression that divorce is unusually prevalent among actors.

Residence required before applicants can be granted a divorce varies in the different states from six months to five years.

The statutory causes for absolute divorce are summarized as follows:

Abandonment or desertion: In all states except New York, District of Columbia, North Carolina, South Carolina.

Refusal to move to state: Tennessee.

Extreme cruelty: In all states except New York, New Jersey, Pennsylvania, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Iowa, Missouri, Alabama, Arkansas, Indian Territory.*

Attempt to take life: Illinois, Tennessee, Louisiana.

Violence endangering life: Pennsylvania, Iowa, Missouri, Kentucky, Alabama, Arkansas, Indian Territory.*

Indignities and defamation: Pennsylvania, Missouri, Tennessee, Louisiana, Arkansas, Indian Territory,* Wyoming, Washington, Oregon.

Adultery: In all states except South Carolina.

Crime against nature: Alabama.

Lewd conduct: Kentucky.

Loathsome disease: Kentucky.

Habitual drunkenness: In all states except Vermont, New York, New Jersey, Pennsylvania, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Texas.

Habitual use of drugs: Maine, Massachusetts, Rhode Island, Mississippi.

Neglect to provide: Maine, Vermont, Massachusetts, Rhode Island, Delaware, Indiana, Michigan, Wisconsin, Nebraska, Tennessee, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Washington.

Neglect of duty: Ohio, North Dakota, South Dakota, Kansas, Oklahoma, Montana, Idaho, California.

Violent temper: Florida, Kentucky.

Intolerant religious belief: New Hampshire, Kentucky.

Conviction or imprisonment for crime: In all states except Maine, Rhode Island, New York, New Jersey, Maryland, District of Columbia, North Carolina, South Carolina, Florida.

Fugitive from justice: Virginia, Louisiana.

Duress or force (lack of real consent to marriage): Pennsylvania, Georgia, Kentucky, Washington.

Fraud or fraudulent (marriage) contract: Connecticut, Pennsylvania, South Carolina, Ohio, Kansas, Kentucky, Oklahoma, Washington.

Mental incapacity: New Jersey, Pennsylvania, Georgia, Mississippi, Indian Territory,* Idaho, Utah, Washington.

Want of age: Delaware.

Impotency or physical incapacity: In all states except Vermont, Connecticut, New York, District of Columbia, South Carolina, Iowa, North Dakota, South Dakota, Louisiana, Texas, Montana, Idaho, California.

Pregnancy before marriage by other than husband: In all states except Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, District of Columbia, South Carolina, Florida, Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, North Dakota, South Dakota, Nebraska, Louisiana, Arkansas, Indian Territory,* Texas, Montana, Idaho, Colorado, Utah, Nevada, Washington, Oregon, California.

Illicit carnal intercourse before marriage: Maryland, Virginia, West Virginia.

* Since 1907 under the jurisdiction of Oklahoma.

Bigamy: Pennsylvania, Florida, Ohio, Illinois, Missouri, Kansas, Tennessee, Mississippi, Arkansas, Indian Territory,* Oklahoma, Colorado.

Consanguinity: Pennsylvania, Georgia, Florida, Mississippi. *Void and voidable marriage (not otherwise specified):* Rhode Island, Delaware.

Previous divorce in another state: Florida, Ohio, Michigan.

Misconduct: Rhode Island, Wisconsin.

Vagrancy (includes treatment endangering reason or injuring health): Missouri, Wyoming.

Voluntary separation: Rhode Island, Wisconsin, Kentucky.

Civil death: Rhode Island.

Fresumption of death: Rhode Island, Connecticut.

Causes deemed sufficient by court: Washington.

When divorce is refused: In many states divorce is refused where there has been collusion, connivance, condonation or recrimination. It is probably true that in those states in which no mention is made in the statutes of these defenses, a showing of any of them would nevertheless be a sufficient ground for refusing the divorce.

Collusion is an agreement between husband and wife that one of them shall commit, or appear to have committed, or be represented in court as having committed, acts constituting a cause of divorce, for the purpose of enabling the other to obtain a divorce.

Connivance is the corrupt consent of one party to the commission by the other of the acts constituting the cause of divorce.

Condonation is the conditional forgiveness, either express or implied, of a matrimonial offense constituting a cause of divorce.

Recrimination is a showing by the defendant of any cause of divorce against the plaintiff, in bar of the plaintiff's cause of divorce.

Change of name after divorce: In Arkansas, Connecticut,

* Since 1907 under the jurisdiction of Oklahoma.

Illinois, Indian Territory,* Kansas, Kentucky, Massachusetts, Minnesota, Missouri, Nevada, New Hampshire, Ohio, Oklahoma and Rhode Island, when a divorce is granted to a woman her name may be changed to that of a former husband or to her maiden name. In the District of Columbia, Georgia, Maine, Oregon, Washington and Wisconsin such change may be made in all cases, whether the woman is plaintiff or defendant. In Michigan, whether plaintiff or defendant, the court may decree to restore the maiden name to a woman, or the name she legally bore prior to her marriage to the husband in the divorce suit, or allow her to adopt another name, except where there is a minor child of the parties. In New Jersey in case of absolute divorce a woman may assume her maiden name provided that she file with the county clerk of the county in which she lives, and the county clerk of the county in which she lived when the divorce was granted, declaration of her intention so to do, and the date on which such change of name is to be made.

In Arizona the wife may change her name, if it is specially prayed for in the pleadings. In Texas the statute provides for the change of name of either party, if such change is specially pleaded. In Delaware the court may change the name of the wife, and of any or all issue born during the marriage. In Vermont the court may allow the woman to assume her maiden name, and may change the names of minor children of divorced parents when application for that purpose is made in the petition for divorce.

Uniform divorce legislation: For more than 25 years the advisability of securing uniform divorce laws throughout the country has attracted attention. According to the opinion of national legislators and all writers, the Federal Congress can not deal with this matter without an amendment to the Constitution, and efforts have therefore been concentrated on securing uniform divorce laws under state legislation.

THE ROCKEFELLER FOUNDATION

The Rockefeller Foundation was chartered May 14th, 1913, in New York City. It was organized for the purpose of receiving and maintaining a fund or funds, and applying the income and principal thereof to promote the well-being of mankind throughout the world. Appropriations are made by the board of directors or the executive committee on the report and recommendation of the secretary or any other officer or member of the Foundation. The total funds, securities and other sources of income held December 1st, 1914, amounted to \$103,930,817.19. From the income, \$2,000,000 annually, or as much thereof as he shall designate, shall be applied during the lifetime of John D. Rockefeller to specific objects within the corporate purposes of the Foundation, as he may from time to time direct. Any balance of the \$2,000,000 not thus designated during the fiscal year is transferred to the income of the foundation, to be used as it may see fit.

The major part of the Foundation's work consists in making contributions to other agencies carrying on philanthropic activities. The appropriations are in general made in the form of pledges to particular institutions for definite amounts, and when once made each pledge becomes a contract which is not subject to review by the Foundation. The Foundation has embarked upon the following activities:

The organization of the International Health Commission for a worldwide campaign against the hookworm disease. A representative was sent around the world to visit foreign countries where the greatest infection was known to exist. Upon his recommendations, work was inaugurated to combat the trouble, in British West Indies, Central America, Ceylon, Malay States and the Philippines.

The promotion of medical education and public health in China. Before undertaking this important work, a commission of three persons was sent to China, and after spending four months in that country, made a report of the findings; this in order that the Foundation might proceed intelligently. Its recommendations are now receiving consideration.

The investigation of industrial relations. Having in mind that hardly any relation in life is more far reaching than the industrial relation, and particularly having in view the growing tendency to misunderstanding and lack of harmony between employers and employees, the Foundation feels that if it can work out sound and substantial improvements in the relation of capital and labor, it can hardly do anything better calculated to "promote the well-being of mankind." The inquiry will

not be local or restricted, but the experience of the several countries of the world will be drawn upon.

Belgian Relief. To investigate for the Foundation the efficiency of the distributing organization, a commission of three sailed for Europe November 11, 1914. They reported in highest praise of the activities of the authorities engaged in the relief work. However, as the object was to start a stream of food supplies flowing into Belgium with the least possible delay, the Foundation sent its first ship November 2nd, before the investigating commission started. This vessel contained 28,500 barrels of flour, 14,000 100-lb. packets of rice, 600,000 pounds of beans, 100,000 pounds of bacon. On a second voyage the ship carried 3,500 tons of food and clothing; another ship carried 4,800 tons of food; another a cargo of wheat. The Foundation spent over \$1,000,000 on ships and cargoes. It also chartered a steamship pier, to facilitate loading of supplies, and furnished ships to carry contributions from other sources.

During the first year of its existence the Foundation pledged \$10,000 a year for ten years to the American Academy in Rome; \$20,000 a year for ten years to the New York Association for Improving the Condition of the Poor, for Widows' Pensions; purchased in Louisiana 85,000 acres on the coast of the Gulf of Mexico at a cost of \$225,000, as a refuge for migratory birds, to prevent wanton destruction of birds, important to agricultural interests in keeping down insect pests, which inflict a loss on the country annually of approximately \$400,000,000.

During the winter of 1914-1915 the Foundation gave \$45,000 to assist in the relief of the poor in New York.

Other appropriations were: \$750,000 to Wellesley College, because of its extensive fire loss; and \$2,550,000 to the Rockefeller Institute for Medical Research, for addition to land, buildings and endowment. (A physician was sent to Texas by the Institute to instruct the health authorities and private physicians as to the proper method of dealing with epidemic cerebro-spinal meningitis; the new curative serum was administered to hundreds, with resulting decrease of the normal death rate from 75% to less than 25%.)

The annual meeting is held on the Wednesday next preceding the fourth Thursday of January. Stated meetings are held on the Wednesday next preceding the fourth Thursday of May and October in each year.

The office of the corporation is at 61 Broadway, New York.

RULES GOVERNING THE GRANTING OF PASSPORTS

1. **BY WHOM ISSUED AND REFUSAL TO ISSUE.**—No one but the Secretary of State may grant and issue passports in the United States (Revised Statutes, sections 4075, 4078), and he is empowered to refuse them in his discretion.

Passports are not issued by American diplomatic and consular officers abroad, except in cases of emergency; and a citizen who is abroad and desires to procure a passport must apply therefor through the nearest diplomatic or consular officer to the Secretary of State.

Applications for passports by persons in Porto Rico or the Philippines should be made to the Chief Executives of those islands. The evidence required of such applicants is the same as that required of applicants in the United States.

2. **FEE.**—By act of Congress approved March 23, 1888, a fee of one dollar is required to be collected for every citizen's passport. That amount in currency or postal money order should accompany each application made by a citizen of the United States. Orders should be made payable to the Disbursing Clerk of the Department of State. Drafts or checks will not be accepted.

3. **APPLICATIONS.**—A person who is entitled to receive a passport, if within the United States, must make a written application, in the form of an affidavit, to the Secretary of State. The application must be made by the person to whom the passport is to be issued and signed by him, as it is not competent for one person to apply for another.

The affidavit must be attested by an officer authorized to administer oaths, and if he has an official seal it must be affixed. If he has no seal, his official character must be authenticated by certificate of the proper legal officer.

If the applicant signs by mark, two attesting witnesses to his signature are required. The applicant is required to state the date and place of his birth, his occupation, the place of his permanent residence and within what length of time he will return to the United States with the purpose of residing and performing the duties of citizenship.

The applicant must take the oath of allegiance to the Government of the United States.

The application must be accompanied by a description of the person applying, and should state the following particulars, viz.: Age, —; years; stature, — feet — inches (English measure); forehead, —; eyes, —; nose, —; mouth, —; chin, —; hair, —; complexion, —; face, —.

The application must be accompanied by a certificate from at least one credible witness that the applicant is the person he represents himself to be, and that the facts stated in the affidavit are true to the best of the witness's knowledge and belief.

4. **NATIVE CITIZENS.**—An application containing the information indicated by rule 3 will be sufficient evidence in the case of native citizens; but

A person of the Chinese race, alleging birth in the United States, must obtain from the Commissioner of Immigration or Chinese inspector in charge at the port through which he proposes to leave the country a certificate upon his application, under the seal of such officer, showing that there has been granted to him by the latter a return certificate in accordance with rule 16 of the Chinese Regulations of the Department of Commerce and Labor. For this purpose special blank forms of application for passports are provided.

Passports issued by the Department of State or its diplomatic or consular representatives are intended for identification and protection in foreign countries, and not to facilitate entry into the United States, immigration being under the supervision of the Department of Commerce and Labor.

5. **A PERSON BORN ABROAD WHOSE FATHER WAS A NATIVE CITIZEN OF THE UNITED STATES.**—In addition to the statements required by rule 3, his application must show that his father was born in the United States, resided therein, and was a citizen at the time of the applicant's birth. The Department may require that this affidavit be supported by that of one other citizen acquainted with the facts.

6. **NATURALIZED CITIZENS.**—In addition to the statements required by rule 3, a naturalized citizen must transmit his certificate of naturalization, or a duly certified copy of the court record thereof, with his application. It will be returned to him after inspection. He must state in his affidavit when and from what port he emigrated to this country, what ship he sailed on, where he has lived since his arrival in the United States, when and before what court he was naturalized, and that he is the identical person described in the certificate of naturalization. The signature to the application should conform in orthography

to the applicant's name as written in his certificate of naturalization, or an explanation of the difference should be submitted.

7. **WOMAN'S APPLICATION.**—If she is unmarried, in addition to the statements required by rule 3, she should state that she has never been married. If she is the wife or widow of a native citizen of the United States the fact should be made to appear in her application which should be made according to the form prescribed for a native citizen whether she was born in this country or abroad. If she is the wife or widow of a naturalized citizen, in addition to the statements required by rule 3, she must transmit for inspection her husband's certificate of naturalization, or a certified copy of the court record thereof, must state that she is the wife (or widow) of the person described therein, and must set forth the facts of his emigration, naturalization, and residence, as required in the rules governing the application of a naturalized citizen. A married woman's citizenship follows that of her husband so far as her international status is concerned. It is essential, therefore, that a woman's marital relations be indicated in her application for a passport, and that in the case of a married woman her husband's citizenship be established.

8. **THE CHILD OF A NATURALIZED CITIZEN CLAIMING CITIZENSHIP THROUGH THE NATURALIZATION OF THE PARENT.**—In addition to the statements required by rule 3, the applicant must state that he or she is the son or daughter, as the case may be, of the person described in the certificate of naturalization, which must be submitted for inspection, and must set forth the facts of emigration, naturalization, and residence, as required in the rule governing the application of a naturalized citizen.

9. **A RESIDENT OF AN INSULAR POSSESSION OF THE UNITED STATES WHO OWES ALLEGIANCE TO THE UNITED STATES.**—In addition to the statements required by rule 3, he must state that he owes allegiance to the United States and that he does not acknowledge allegiance to any other government; and must submit affidavits from at least two credible witnesses having good means of knowledge in substantiation of his statements of birth, residence and loyalty.

10. **EXPIRATION OF PASSPORT.**—A passport expires two years from the date of its issuance. A new one will be issued upon a new application, and if the applicant be a naturalized citizen, the old passport will be accepted in lieu of a certificate of naturalization, if the application upon which it was issued is found to contain sufficient information as to the naturalization of the applicant. Passports are not renewed by the Department, but a person abroad holding a passport issued by the Department may have it renewed for a period of two years upon presenting it to a diplomatic or principal consular officer of the United States when it is about to expire.

11. **WIFE, MINOR CHILDREN, AND SERVANTS.**—When the applicant is accompanied by his wife, minor children, or servant who would be entitled to receive a passport, it will be sufficient to state the fact, giving the respective ages of the children and the allegiance of the servant, when one passport will suffice for all. For any other person in the party a separate passport will be required. A woman's passport may include her minor children and servant under the above-named conditions. (The term servant does not include a governess, tutor, pupil, companion, or person holding like relations to the applicant for a passport.)

12. **TITLES.**—Professional and other titles will not be inserted in blanks.

13. **BLANK FORMS OF APPLICATION.**—They will be furnished by the Department to persons who desire to apply for passports, but are not furnished, except as samples, to those who make a business of procuring passports.

14. **ADDRESS.**—Communications should be addressed to the Department of State, Bureau of Citizenship, and each communication should give the post-office address of the person to whom the answer is to be directed.

Section 4075 of the Revised Statutes of the United States, as amended by the act of Congress, approved June 14, 1902, provides that "the Secretary of State may grant and issue passports, and cause passports to be granted, issued, and verified in foreign countries by such diplomatic or consular officers of the United States, and by such chief or other executive officer of the insular possessions of the United States, and under such rules as the President shall designate and prescribe for and on behalf of the United States."

The Secretary of State is authorized to make regulations on the subject of granting and issuing passports additional to these rules and not inconsistent with them.

THE INITIATIVE, REFERENDUM, AND RECALL

THE INITIATIVE

The progress of popular government in this country has been greatest in the advance of the initiative and the referendum. By the former the people are empowered to pass laws and ordinances which the ordinary legislative bodies are powerless to change or modify.

The initiative was first adopted by Switzerland in 1891 and in the United States by South Dakota in 1898. Prior to 1911 ten States provided some method for direct legislation by the people. In that year Arizona was admitted as a State with a constitution containing the initiative and the referendum, and California adopted the initiative by constitutional amendment. Since that time it has been adopted by several other States in the adoption of new constitutions or by amendment of the original.

The power of the initiative may extend to the adoption of constitutional amendment as well as to the ordinary legislation or it may be restricted to the latter alone.

The petition of from five to twenty-five per cent. of the qualified voters, varying in the different localities, is necessary in order to bring a matter of legislation before the people for vote. The normal is from eight to ten per cent. The majority required for the adoption of any law or ordinance so passed on may be a majority of all the votes cast at the election or a majority of the votes cast for or against the particular measure. The latter method is considered more fair as it has been found almost impossible to secure the adoption of legislative measures by a majority of the total vote cast, from ten to thirty per cent. of the voters at a general election casting their votes for the candidates only and ignoring the petitions.

In the State of Oregon, preceding an election at which a question of legislation is to be submitted, a printed copy of the measure to be voted on is sent to every qualified voter in the State, together with arguments favoring its adoption prepared by its proponents and arguments opposing it prepared by such citizens who may desire its defeat.

In connection with the commission form of municipal government the ordinance proposed is submitted to the Board of Commissioners by a certain percentage of the qualified voters or a percentage of the total vote cast at the last preceding municipal election. If it so desires the Board can take the initiative and pass the proposed ordinance or submit it at a general or special election to the voters. Usually, in order to hold a special election a petition signed by twenty-five per cent. of the voters is required; for a general election the number usually is ten per cent.

NEW STANDARD BARREL

An Act of Congress, approved March 4, 1915, requires that the standard barrel for fruits, vegetables, and other dry commodities other than cranberries shall be of the following dimensions when measured without distention of its parts: Length of stave, 28½ inches; diameter of heads, 17 1-8 inches; distance between heads, 26 inches; circumference of bulge, 64 inches, outside measurement; and the thickness of staves not greater than 4-10 of an inch: *Provided*, That any barrel of a different form having a capacity of 7,056 cubic inches shall be a standard barrel. The standard barrel for cranberries shall be of the following dimensions when measured without distention of its parts: Length of staves, 28½ inches; diameter of head, 16½ inches; distance between heads, 25¼ inches; circumference of bulge, 58½ inches, outside measurement; and the thickness of staves not greater than 4-10 of an inch.

After the first day of July, 1916 it will be unlawful to sell, offer, or expose for sale in any State, Territory, or the District of Columbia, or to ship from any State, Territory, or the District of Columbia to any other State, Territory, or the District of Columbia or to a foreign country, a barrel containing fruits or vegetables or any other dry commodity of less capacity than the standard barrels defined above, or subdivisions thereof known as the third, half, and three-quarters barrel. Any person guilty of a willful violation of any of the provisions of this Act shall be deemed guilty of a misdemeanor and be liable to a fine or imprisonment. No barrel shall be deemed below standard when shipped to any foreign country and constructed according to the specifications or directions of the foreign purchaser if not constructed in conflict with the laws of the foreign country to which the same is intended to be shipped.

Reasonable variations shall be permitted and tolerance shall be established by rules and regulations made by the Director of the Bureau of Standards.

The chief difficulty in the use of the initiative has been found in amending measures initiated by petition. The law or ordinance must be adopted as it stands or a delay of two years or more ensues while a suitable law is being framed.

THE REFERENDUM

The referendum is the submission of proposed laws or ordinances, already passed by a legislative body or council, to a vote by the people for ratification. The idea is of ancient origin, having been used in Switzerland since the sixteenth century. In this country it has come into wide use since 1898, especially in connection with the initiative, as a means of direct legislation.

The method of procedure is practically the same as in the initiative, the number of signers to a petition being generally from five to twenty-five per cent.

The referendum has been adopted both for State and municipal use and obtains in almost every Commission-ruled city.

THE RECALL

The recall is the means by which the people, at will, may retire a regularly elected officer of their government if he has ceased to have the confidence of the voters.

It is in use in many cities and was adopted by the State of Oregon in 1908. In 1911 Arizona applied for admission as a State presenting a constitution including among other features of popular government the power of recall, extending to the judiciary as well as to the executive and legislative officers. President Taft vetoed the bill of admission on that account and when Arizona was finally admitted the power of recall was restricted so that it would not include judicial officers.

Local recall has spread widely with the adoption of the Commission form of City Government and has been put to some use.

The general rule requires that the petitioners for recall form twenty-five per cent. of the total number of those voting for all candidates at the last preceding election. In a Commission governed city from fifteen to seventy-five per cent. of the total voters is required though the number is usually twenty-five per cent.

The official whose recall is petitioned for may be a candidate, and, unless he receives the highest vote at the election, he is, without further action, removed from office.

In some charters it has been deemed prudent to provide for a period directly following the election of a public officer when he shall be immune from the power of the recall.

UNITED STATES FLAG REGULATIONS

The following rules concerning the Flag have been formulated by the Sons of the Revolution.

It should not be hoisted before sunrise nor allowed to remain up after sunset.

At "retreat," sunset, civilian spectators should stand at "attention" and uncover during the playing of the "Star-Spangled Banner." Military spectators are required by regulation to stand at "attention" and give the military salute. During the playing of the national hymn at "retreat" the flag should be lowered, but not then allowed to touch the ground.

When the national colors are passing on parade or in review, the spectator should, if walking, halt, and if sitting, arise and stand at attention and uncover.

When the national and State or other flags fly together, the national flag should be placed on the right.

When the flag is flown at half staff as a sign of mourning, it should be hoisted to full staff at the conclusion of the funeral.

In placing the flag at half staff, it should first be hoisted to the top of the staff and then lowered to position, and preliminary to lowering from half staff, it should be first raised to the top.

The national salute is one gun for every State. The international salute is, under the law of nations, twenty-one guns.

The days on which the national emblem should be shown at full mast are: Lincoln's Birthday, February 12; Washington's Birthday, February 22; anniversary of the battle of Lexington, April 19; Memorial Day, May 30; Flag Day, June 14; anniversary of the battle of Bunker Hill, June 17; Independence Day, July 4; the anniversary of the battle of Saratoga, October 17; the surrender of Yorktown, October 19, and Evacuation Day, November 25. A footnote says: "On Memorial Day, May 30, the flag should fly at half staff from sunrise to noon, and full staff from noon to sunset."

FOR ASCERTAINING ANY DAY OF THE WEEK FOR ANY GIVEN TIME
WITHIN TWO HUNDRED YEARS FROM THE INTRODUCTION OF THE
NEW STYLE, 1752,† TO 1952 INCLUSIVE.

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
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NOTE.—To ascertain any day of the week, first look in the table for the year required, and under the months are figures which refer to the corresponding figures at the head of the columns of days below. For Example:—To know on what day of the week July 4 fell in the year 1776, in the table of years look for 1776 (a Leap Year), and in a parallel line, under July, is fig. 1, which directs to col. 1, in which it will be seen that July 4 fell on Thursday.

1°	2	3	4	5	6	7	1
Monday	1 Tuesday	1 Wednesday	1 Thursday	1 Friday	1 Saturday	1 Sunday	1
Tuesday	2 Wednesday	2 Thursday	2 Friday	2 Saturday	2 Sunday	2 Monday	2
Wednesday	3 Thursday	3 Friday	3 Saturday	3 Sunday	3 Monday	3 Tuesday	3
Thursday	4 Friday	4 Saturday	4 Sunday	4 Monday	4 Tuesday	4 Wednesday	4
Friday	5 Saturday	5 Sunday	5 Monday	5 Tuesday	5 Wednesday	5 Thursday	5
Saturday	6 Sunday	6 Monday	6 Tuesday	6 Wednesday	6 Thursday	6 Friday	6
Sunday	7 Monday	7 Tuesday	7 Wednesday	7 Thursday	7 Friday	7 Saturday	7
Monday	8 Tuesday	8 Wednesday	8 Thursday	8 Friday	8 Saturday	8 Sunday	8
Tuesday	9 Wednesday	9 Thursday	9 Friday	9 Saturday	9 Sunday	9 Monday	9
Wednesday	10 Thursday	10 Friday	10 Saturday	10 Sunday	10 Monday	10 Tuesday	10
Thursday	11 Friday	11 Saturday	11 Sunday	11 Monday	11 Tuesday	11 Wednesday	11
Friday	12 Saturday	12 Sunday	12 Monday	12 Tuesday	12 Wednesday	12 Thursday	12
Saturday	13 Sunday	13 Monday	13 Tuesday	13 Wednesday	13 Thursday	13 Friday	13
Sunday	14 Monday	14 Tuesday	14 Wednesday	14 Thursday	14 Friday	14 Saturday	14
Monday	15 Tuesday	15 Wednesday	15 Thursday	15 Friday	15 Saturday	15 Sunday	15
Tuesday	16 Wednesday	16 Thursday	16 Friday	16 Saturday	16 Sunday	16 Monday	16
Wednesday	17 Thursday	17 Friday	17 Saturday	17 Sunday	17 Monday	17 Tuesday	17
Thursday	18 Friday	18 Saturday	18 Sunday	18 Monday	18 Tuesday	18 Wednesday	18
Friday	19 Saturday	19 Sunday	19 Monday	19 Tuesday	19 Wednesday	19 Thursday	19
Saturday	20 Sunday	20 Monday	20 Tuesday	20 Wednesday	20 Thursday	20 Friday	20
Sunday	21 Monday	21 Tuesday	21 Wednesday	21 Thursday	21 Friday	21 Saturday	21
Monday	22 Tuesday	22 Wednesday	22 Thursday	22 Friday	22 Saturday	22 Sunday	22
Tuesday	23 Wednesday	23 Thursday	23 Friday	23 Saturday	23 Sunday	23 Monday	23
Wednesday	24 Thursday	24 Friday	24 Saturday	24 Sunday	24 Monday	24 Tuesday	24
Thursday	25 Friday	25 Saturday	25 Sunday	25 Monday	25 Tuesday	25 Wednesday	25
Friday	26 Saturday	26 Sunday	26 Monday	26 Tuesday	26 Wednesday	26 Thursday	26
Saturday	27 Sunday	27 Monday	27 Tuesday	27 Wednesday	27 Thursday	27 Friday	27
Sunday	28 Monday	28 Tuesday	28 Wednesday	28 Thursday	28 Friday	28 Saturday	28
Monday	29 Tuesday	29 Wednesday	29 Thursday	29 Friday	29 Saturday	29 Sunday	29
Tuesday	30 Wednesday	30 Thursday	30 Friday	30 Saturday	30 Sunday	30 Monday	30
Wednesday	31 Thursday	31 Friday	31 Saturday	31 Sunday	31 Monday	31 Tuesday	31

† 1752 same as 1772 from Jan. 1 to Sept. 2. From Sept. 14 to Dec. 31 same as 1780 (Sept. 3-13 were omitted).

THE NET WEIGHT LAW

The so called net weight law compels manufacturers to make a clear statement of the weight, volume or contents of their packages of food. Regulations for carrying out this law have been drawn up by the Treasury, Agriculture and Commerce Departments. These regulations apply to foods shipped in interstate commerce or sold in the District of Columbia or the territories.

The regulations in general require that the manufacturers of foods shall plainly mark all packages, bottles or other containers holding more than two ounces avoirdupois, or more than one fluid ounce, to show the net weight or volume of the contents.

The measure must be stated in avoirdupois pounds and ounces, United States gallons, quarts, pints or fluid ounces, United States standard bushels, half bushels, pecks, quarts, pints or half pints. The contents by a like method may be expressed in terms of metric weight or measure. The volume of liquids must be computed at 68 degrees Fahrenheit.

The quantity stated on the container must represent the actual quantity of food exclusive of wrappings and container.

In general, solids must be stated in terms of weight and liquids in terms of volume except where there is a definite trade custom; otherwise any marking of the packing, in terms that are generally understood to express definite quantities, will be permitted.

The quantity of viscous or semi-solid food or of mixtures of solids and liquids may be stated either by weight or measure, but the statement must clearly indicate whether the quantity is expressed in terms of weight or measure.

In the case of certain articles the contents may be stated by numerical count, provided such numerical count gives accurate information as to the quantity of food in the package. Under this requirement it would not be enough to state that a package

of candy contained 24 cream peppermints, as candies vary in size, and this would not be a statement of the actual quantity of candy in the package.

The regulations also permit the statement of minimum volume or weight as: "minimum weight 12 ounces." No variations below the stated minimum quantity will be permitted.

The statement of weight or measure must be marked in terms of the largest unit contained in the package; for example, if the package contains a pound and a fraction, the contents must be expressed in terms of pounds and fractions thereof, or pounds and ounces, and not merely in ounces.

In the packing and bottling of many foods it would be impossible or else add unnecessarily to cost for the manufacturer to place an absolutely accurate statement of the amount of the food in every package and for this reason the regulations permit tolerances or variations in packages where the discrepancies are due exclusively to unavoidable errors in weighing, measuring or counting which occur in packing conducted in compliance with good commercial practice.

This tolerance is allowed in order to permit the use of weighing and measuring machines which, like human operators cannot weigh or measure with absolute accuracy every package. The regulations, however, provide that a run of such packages must show as may cases of overweight and as much excess as it does cases of underweight or undervolume.

Similarly in the case of bottles which cannot be blown with absolute accuracy, tolerances are allowed, but with the same proviso that the run of bottles must show as much excess in volume as deficiency in volume. Queer shaped bottles must not show greater discrepancies than standard round or square bottles of the same capacity. This means that a manufacturer who uses some special bottle of odd shape cannot claim a greater variation because of the difficulty of blowing or manufacturing such a bottle or container.

UNITED STATES BANKRUPTCY LAW

The United States Bankruptcy Act was passed in July, 1898, and amended in 1903, 1906 and 1910.

Important sections are:

Sec. 4. Who may become bankrupts: a—Any person, except a municipal, railroad, insurance, or banking corporation, shall be entitled to the benefits of this act as a voluntary bankrupt. b—Any natural person (except a wage-earner or a person engaged chiefly in the farming or the tillage of the soil), any unincorporated company, and any moneyed business or commercial corporation, except a municipal, railroad, insurance, or banking corporation, owing debts to the amount of \$1,000, or over, may be adjudged an involuntary bankrupt upon default or an impartial trial, and shall be subject to the provisions and entitled to the benefits of this act.

The bankruptcy of a corporation shall not release its officers, directors or stockholders, as such, from any liability under the laws of a state or territory or of the United States.

Sec. 7. Duties of bankrupts—(a) The bankrupt shall (1) attend the first meeting of his creditors, if directed by the court or judge thereof to do so, and the hearing upon his application for a discharge, if filed; (2) comply with all lawful orders of the court; (3) examine the correctness of all proofs of claims filed against his estate; (4) execute and deliver such papers as shall be ordered by the court; (5) execute to his trustee transfers of all his property in foreign countries; (6) immediately inform his trustee of any attempt by his creditors or other persons to evade the provisions of this act coming to his knowledge; (7) in case of any person having to his knowledge proved a false claim against his estate, disclose that fact immediately to his trustee; (8) prepare, make oath to, and file in court within ten days, unless further time is granted after the adjudication of an involuntary bankrupt, and with the petition of a voluntary bankrupt, a schedule of his property, showing the amount and kind of property, the location thereof its money value in detail, and a list of its creditors, showing their residences, if known (if unknown that fact to be stated), the amount due each of them, the consideration thereof, the security held by them, if any, and a claim for such exemptions as he may be entitled to, all in tripli-

cate, one copy of each for the clerk, one for the referee and one for the trustee; and (9) when present at the first meeting of his creditors, and at such other times as the court shall order, submit to an examination concerning the conducting of his business, the cause of his bankruptcy, his dealings with his creditors and other persons, the amount, kind and whereabouts of his property, and in addition, all matters which may affect the administration and settlement of his estate; but no testimony given by him shall be offered in evidence against him in any criminal proceedings.

Provided, however, that he shall not be required to attend a meeting of his creditors, or at or for an examination at a place more than 150 miles distant from his home or principal place of business, or to examine claims except when presented to him, unless ordered by the court, or a judge thereof, for cause shown, and the bankrupt shall be paid his actual expenses from the estate when examined or required to attend at any place other than the city, town or village of his residence. Discharge in bankruptcy relieves the bankrupt from all his provable debts, except taxes due the U. S., state, county or municipality in which he resides, liabilities for money or property obtained by false pretences, willful and malicious injury to persons or property, alimony, debts created by fraud or misappropriation, etc.

Sec. 17. Debts Not Affected by a Discharge.—A discharge in bankruptcy shall release a bankrupt from all of his provable debts, except such as (1) are due as a tax levied by the United States, the State, county, district, or municipality in which he resides; (2) are liabilities for obtaining property by false pretences or false representations, or for willful and malicious injuries to the person or property of another, or for alimony due or to become due, or for maintenance or support of wife or child, or for seduction of an unmarried female, or for criminal conversation; (3) have not been duly scheduled in time for proof and allowance, with the name of the creditor if known to the bankrupt, unless such creditor had notice or actual knowledge of the proceedings in bankruptcy; or (4) were created by his fraud, embezzlement, misappropriation, or defalcation while acting as an officer or in any fiduciary capacity.

STATUTORY WEIGHTS OF THE BUSHEL IN POUNDS

	Apples	Apples, dried	Beets	Buckwheat	Corn in ear, husked	Corn, shelled	Corn meal	Malt	Oats	Onions	Peaches	Dried peaches, peeled	Peas	Potatoes	Sweet potatoes	Rye	Salt	Fine salt	Timothy seed	Turnips
United States.....				48				34	32	57			60	60		56				
Alabama.....		24			70	56			32			38	60		55	56				55
Arizona.....									32							56				
Arkansas.....	50	24		52	70	56	48		32	57		33	60	60	50	56	50		60	57
California.....				40					32							54				
Colorado.....				52	70		50		32	57				60		56	80		45	
Connecticut.....	48	25	60	48			50		32	52		33	60	60	54	56		50		
Delaware.....									32											
Dist. of Columbia.....						56	48							60						
Florida.....	48	24				56	48		32	56	54	33			60	56	60			54
Georgia.....		24		52	70	56	48		32	57		38	60		55	56			45	55
Hawaii.....									32							56				
Idaho*.....									32											
Illinois.....		24		52	70	56	48	38	32	57					50	56		55	45	55
Indiana.....		25		50	70	56	50	35	32	48				60	55	56	50		45	55
Iowa.....	48	24	56	52	70	56	50		32	57	48			60	46	56	80		45	55
Kansas.....	48	24	56	50	70	56		32	32	57	48		60	60	50	56	80		45	55
Kentucky.....		24		56		56	50		32	57		39	60	60	55	56	50	55	45	60
Louisiana.....																32				
Maine.....	44		60	48			50		32	52			60	60		50		60		
Maryland.....		28			70	56	48	34	32	57	40		60	60	60	56		56	45	60
Massachusetts.....	48	25	60	48			50	50	32	52	48	33	60	60	54	56		50	45	55
Michigan.....	48	22		48	70	56	50		32	54		28	60		56	56	56		45	58
Minnesota.....	50	28	50	50	70	56			32	52		28	60		55	56			45	
Mississippi.....		26		48	72	56	48	38	32	57		33	60		60	56	50		45	55
Missouri.....	48	24		52		56	50	38	32	57	48	33	60		56	56	50		45	
Montana.....	45		50	52	70	56	50	30	32	57			60	60		56	50		45	50
Nebraska.....	48	24		52	70	56	50	30	32	57		33	60		50	56	50		45	55
Nevada.....	48	24	56	50		56	48	32	32	57	48		60	60	50	56	80		45	56
New Hampshire.....	48	25	60	48			50		32	52	48		60	60	54	56		50	45	55
New Jersey.....	50	25	60	50					30	57	50	13	60		54	56			45	
New Mexico.....																				
New York.....	48	25		48			50		32	57		33	60		54	56		56	45	
North Carolina.....	48			50	70		48		32	57			60	56	56	56			45	50
North Dakota.....	50		60	42	70	56			32	52			60		46	56	80		45	60
Ohio.....	50	24	56	50	68	56		34	32	55	48	33	60	60	50	56			45	60
Oklahoma.....	48	24	60	52	70	56	50	38	32	57	48		60		55	56	80		45	00
Oregon.....	45	28		42					32			28	60		56	56				
Pennsylvania.....				48					32	50				56		56		62		
Rhode Island.....	48	25	50	48	70	56	50	38	32	50	48	33	60		54	56		50	45	50
South Carolina.....							48													
South Dakota.....			60	42	70	56			32	52			60		46	56	80		42	60
Tennessee.....	50	24	50	50	70	56			32	56	50	26	60		50	56	50		45	50
Texas.....	45	28		42	70	56			32	57	50	28			55	56	50		45	55
Utah.....																				
Vermont.....	46		60	48					32	52			60	60		56	70		45	60
Virginia.....	45	28		52	70	56	50	38	30	57		40	60		56	56	50		45	55
Washington.....	45	28		42					32			28		60		56				
West Virginia.....		25		52					32			33		60		56			45	
Wisconsin.....	50	25	50	50			50	34	32	57		33	60		54	56		50	45	42
Wyoming.....																				

*Idaho law repealed in 1905.

Where State laws have been passed the bushel weights of the following products are uniform with the exceptions noted:

Beans, 60 pounds, except Arizona 55, and Vermont 62.
 Flaxseed, 56 pounds, except Connecticut, Massachusetts, New Jersey, New York, North Carolina, each 55.
 Hempseed, 44 pounds, except Minnesota 50, and Nevada 48.
 Coarse Salt, 70 pounds, except Illinois 50, and Pennsylvania 85.
 Clover seed, 60 pounds, except New Jersey 64. Bran, 20 pounds.
 Timothy seed, 45 pounds, except Arkansas 60, and South Dakota 42.
 Maize, 56 pounds, except California 52.
 Millet, 50 pounds, except Minnesota 48. Wheat, 60 pounds.

WEIGHTS AND MEASURES

LINEAR MEASURE

12 in. = 1 foot. 320 rods = 1 mile.
 3 ft. = 1 yard. 5,280 feet = 1 mile.
 5½ yds. = 1 rod. 3 miles = 1 league.
 The hand (4 in.) is used to measure horses' heights. The
 nautical mile is 6,086.44 ft. 1 knot is 1.1528 statute miles.
 1 degree is 67.168 statute miles.

SQUARE MEASURE

144 sq. in. = 1 sq. ft. 160 sq. rods = 1 acre.
 9 sq. ft. = 1 sq. yd. 640 acres = 1 sq. mile.
 30¼ sq. yds. = 1 sq. rod.
 The side of a square having an area of an acre is approximately
 208¼ feet.

SURVEYORS' MEASURE

7.92 inches = 1 link. 10 sq. chains or 160 sq. rods = 1
 25 links = 1 rod. 1 acre.
 4 rods = 1 chain. 640 acres = 1 sq. mile.
 36 sq. miles (6 miles sq.) = 1
 township.

MEASUREMENT OF LAND

16½ feet..... 1 rod
 320 rods..... 1 mile
 66 feet..... 1 chain
 10 chains..... 1 furlong
 80 chains..... 1 mile
 5,280 feet..... 1 mile
 40 sq. rods..... 1 rod
 43,560 square feet..... 1 acre
 1 mile square..... 640 acres
 660 feet square..... 10 acres
 208 feet and 8½ inches square..... 1 acre
 933 feet and 4¼ inches square..... .25 acres

CUBIC MEASURE

1,728 cu. in. = 1 cu. ft. 67.2 cu. in. = 1 qt. dry meas.
 27 cu. ft. = 1 cu. yd. 268.8 cu. in. = 1 standard gal.

DRY MEASURE

2 pints = 1 quart. 4 pecks = 1 bushel.
 8 quarts = 1 peck.

LIQUID MEASURE

4 gills = 1 pint. 31¼ gallons = 1 barrel.
 2 pints = 1 quart. 2 barrels = 1 hogshead.
 4 quarts = 1 gallon.

APOTHECARIES' WEIGHT

20 grains = 1 scruple. 8 drams = 1 ounce.
 3 scruples = 1 dram. 12 ounces = 1 pound.

AVOIRDUPOIS WEIGHT

16 drams = 1 ounce. 100 pounds = 1 hundredweight.
 16 ounces = 1 pound. 20 hundredweights = 1 ton.
 14 pounds = 1 stone.
 Long ton = 2,240 pounds, used mostly in Great Britain.

TROY WEIGHT

24 grains = 1 pennyweight.
 20 pennyweights = 1 ounce
 12 ounces = 1 pound.
 1 carat in diamond measure = 3.2 troy grains.

PAPER MEASURE

24 sheets = 1 quire. 2 reams = 1 bundle.
 20 quires = 1 ream. 5 bundles = 1 bale.

MARINERS' MEASURE

6 feet = 1 fathom. 5,280 feet = 1 stat. mile.
 120 fathoms = 1 cab. le'th. 6,085 feet = 1 naut. mile.
 7¼ cable lengths = 1 mile.

METRIC SYSTEM

MEASURES OF LENGTH

10 millimetres (mm.) = 1 centimetre (cm.) = 0.3937 inch.
 10 centimetres = 1 decimetre (dm.) = 0.328084 foot.
 10 decimetres = 1 metre (m.) = 1.093614 yard.
 10 metres = 1 dekametre (dam.) = 1.9884 rod.
 10 dekametres = 1 hectometre (hm.) = 0.4971 furlong.
 10 hectometres = 1 kilometre (km.) = 0.6214 mile.

MEASURES OF WEIGHT

10 milligrams (mg.) = 1 centigram (cg.) = 0.1543 grain.
 10 centigrams = 1 decigram (dg.) = 1.5432 grain.
 10 decigrams = 1 gramme (gm.) = 15.4323 grain.
 10 grammes = 1 dekagram (dag.) = 5.6438 drams.
 10 dekagrams = 1 hectogram (hg.) = 3.5274 oz.
 10 hectograms = 1 KILOGRAM (kg.) = 2.204622 lbs.
 10 kilograms = 1 myriagram = 1.5747 stones.
 10 myriagrams = 1 quintal (q.) = 1.9684 cwt.
 10 quintals = 1 tonne (t.) = 0.9842 ton.

MEASURES OF CAPACITY

10 millilitres (mil.) = 1 centilitre (cl.) = 0.0704 gill.
 10 centilitres = 1 decilitre (dl.) = 0.1759 pint.
 10 decilitres = 1 litre (lit.) = 0.8799 quart.
 10 litres = 1 dekalitre (dal.) = 2.1997 galls.
 10 dekalitres = 1 hectolitre (hl.) = 2.7497 bushels.

MEASURES OF LAND

100 sq. metres = 1 are (a.) = 0.0988 rood.
 100 ares = 1 hectare (ha.) = 2.4711 acres.

METRIC MULTIPLES FOR CONVERSION

To Convert

Grains to grammes.....	Multiply by	.065
Ounces to grammes.....	"	28.35
Pounds to grammes.....	"	453.6
Pounds to kilograms.....	"	.45
Hundredweights to kilograms.....	"	50.8
Tons to kilograms.....	"	1016.
Grammes to grains.....	"	15.4
Grammes to ounces.....	"	0.35
Kilograms to ounces.....	"	35.3
Kilograms to pounds.....	"	2.3
Kilograms to cwt.....	"	.02
Kilograms to tons.....	"	.001
Inches to millimetres.....	"	25.4
Inches to centimetres.....	"	2.54
Feet to metres.....	"	.3048
Yards to metres.....	"	.9144
Yards to kilometres.....	"	.0009
Miles to kilometres.....	"	1.6
Millimetres to inches.....	"	.04
Centimetres to inches.....	"	.4
Metres to feet.....	"	3.3
Metres to yards.....	"	1.1
Kilometres to yards.....	"	1093.6
1 Yard = 0.9144 metre.	1 Sq. Metre =	1.196 sq. yd.
1 Litre = 1.760 Pints or 0.22 Gals.		

EVERYDAY WEIGHTS AND MEASURES

3 teaspoonfuls equal 1 tablespoonful liquid.
 4 tablespoonfuls equal 1 wineglass or half a gill.
 2 wineglasses equal 1 gill or half a cup.
 2 gills equal 1 coffee cupful or 16 tablespoonfuls.
 2 coffee cupfuls equal 1 pint.
 2 tablespoonfuls equal 1 ounce liquid.
 1 tablespoonful of salt equals 1 ounce.
 4 coffee cupfuls of sifted flour equal 1 pound.
 1 quart unsifted flour equals 1 pound.
 8 or 10 ordinary sized eggs equal 1 pound.
 1 pint sugar equals 1 pound (white granulated.)
 1 pint of finely chopped meat, packed solidly equals 1 pound.
 A barrel of flour weighs..... 196 lbs.
 A barrel of salt weighs..... 280 "
 A barrel of beef weighs..... 200 "
 A barrel of pork weighs..... 200 "
 A barrel of fish weighs..... 200 "
 A keg of powder equals..... 25 "
 A stone of lead or iron equals..... 14 "
 A pig of lead or iron equals..... 21¼ st.
 Anthracite coal broken—cubic foot averages..... 54 lbs.
 Bituminous coal broken—cubic foot averages..... 49 "
 Cement (hydraulic) Rosendale, weight per bushel..... 70 "
 Cement (hydraulic) Louisville, weight per bushel..... 62 "
 Cement (hydraulic) Portland, weight per bushel..... 96 "
 Gypsum ground, weight per bushel..... 70 "
 Lime, loose, weight per bushel..... 70 "
 Lime, well shaken, weight per bushel..... 80 "
 Sand at 98 lbs. per cu. ft., per bushel..... 122¼ "
 18.29 bushels equal a ton. 1.181 tons equal..... cubic yard.

MEASURES OF TEMPERATURE

Variations of temperature are measured by thermometers, which are graduated on three different systems, viz.:—
The British, or Fahrenheit thermometer.
The Centigrade, or Celsius thermometer.
The Reaumur thermometer.

Reaumur	Centigrade	Fahrenheit	
80	100	212	Water boils at sea-level.
76	95	203	
72	90	194	
68	85	185	
63.1	78.9	174	Alcohol boils.
60	75	167	
56	70	158	
52	65	149	White of egg coagulates
48	60	140	
44	55	131	
42.2	52.8	127	
40	50	122	Tallow melts.
36	45	113	
33.8	42.2	108	
32	40	104	Blood heat.
29.3	36.7	98	
28	35	95	
25.8	32.2	90	
24	30	86	
21.3	26.7	80	
20	25	77	Temperate.
16	20	68	
12.4	15.3	60	
10.2	12.8	55	
8	10	50	
5.8	7.2	45	
4	5	41	
1.3	1.7	35	Water freezes.
0	0	32	
0.9	— 1.1	30	
4	— 9	23	
5.3	— 6.7	20	
8	— 10	14	
9.8	— 12.2	10	
12	— 15	5	Zero Fahr.
14.2	— 17.8	0	
16	— 20	— 4	
20	— 25	— 13	
24	— 30	— 22	
28	— 35	— 31	
32	— 40	— 40	Mercury freezes.

To change from centigrade to Fahrenheit multiply by 9, divide by 5 and add 32. To change from Reaumur to Fahrenheit, multiply by 9, divide by 4 and add 32.

MINIMUM WEIGHTS OF PRODUCE

The following are minimum weights of certain articles of produce according to the laws of the United States:

	Per Bu.		Per Bu.
Wheat.....	60 lbs.	Dried peaches.....	33 lbs.
Corn, in the ear.....	70 "	Dried apples.....	26 "
Corn, shelled.....	56 "	Clover seed.....	60 "
Rye.....	56 "	Flax seed.....	56 "
Buckwheat.....	48 "	Millet seed.....	50 "
Barley.....	48 "	Hungarian grass seed.....	50 "
Oats.....	32 "	Timothy seed.....	45 "
Peas.....	60 "	Blue grass seed.....	44 "
White beans.....	60 "	Hemp seed.....	44 "
Castor beans.....	46 "	Salt (see note below).	
White potatoes.....	60 "	Corn meal.....	48 "
Sweet potatoes.....	55 "	Ground peas.....	24 "
Onions.....	57 "	Malt.....	34 "
Turnips.....	55 "	Bran.....	20 "

SALT.—Weight per bushel as adopted by different states ranges from 50 to 80 pounds. Coarse salt in Pennsylvania is reckoned at 80 pounds, in Kentucky and Illinois at 50 pounds per bushel. Fine salt in Pennsylvania is reckoned at 62 pounds, in Kentucky and Illinois at 55 pounds per bushel.

SPECIFIC GRAVITY

LIQUIDS	Per cent.	TIMBER	Per cent.
Water.....	100	Cork.....	24
Sea-water.....	103	Poplar.....	38
Dead Sea.....	124	Fir.....	55
Alcohol.....	79	Cedar.....	61
Turpentine.....	99	Walnut.....	67
Wine.....	100	Cherry.....	72
Urine.....	101	Maple.....	75
Cider.....	102	Ash.....	84
Beer.....	102	Beech.....	85
Cow's milk.....	103	Mahogany.....	106
Goat's ".....	104	Oak.....	117
Porter.....	104	Ebony.....	133
SUNDRIES	Per cent.	METALS	Per cent.
Indigo.....	77	Aluminum.....	267
Ice.....	92	Zinc.....	719
Gunpowder.....	93	Cast Iron.....	721
Butter.....	94	Tin.....	729
Clay.....	120	Steel.....	783
Coal.....	130	Brass.....	800
Opium.....	134	Copper.....	895
Honey.....	145	Silver.....	1,047
Ivory.....	183	Lead.....	1,135
Sulphur.....	203	Mercury.....	1,357
Marble.....	270	Gold.....	1,926
Glass.....	289	Platinum.....	2,150

To find the weight of a cubic foot, multiply 62.321 lbs. by the specific gravity. To find the number of cubic feet in one ton, divide 35,943 by the specific gravity.

STONE AND BRICK WALLS

A perch of stone is 24.75 cubic feet. When built in the wall, 2½ cubic feet are allowed for the mortar and filling; hence, 22 cubic feet of stone make one perch of wall.

Masons estimate 3 pecks of lime and 4 bushels of sand to a perch of wall.

To find the number of perches of stone in a wall, multiply together the length, height, and thickness in feet, and divide by 22.

Common bricks are 7¼ to 8 inches long by 4¼ inches wide and 2½ inches thick. Front bricks are ¼ inch longer and wider.

It requires 20 common bricks to lay one cubic foot. In an 8-inch wall 15 common bricks make one foot of wall. (See also Material Required for Buildings).

WOOD AND LUMBER MEASURE

A cord of wood contains 128 cubic feet. To ascertain how many cords there are in a pile of wood, multiply the length by the height, and that by the width, and divide the product by 128.

To ascertain the circumference of a tree required to hew a stick of timber of any given number of inches square, divide the given side of the square by 0.225, and the quotient is the circumference required.

Round timber, when squared, loses one-fifth.

To measure round timber, take the girth in inches at both large and small ends, add them, divide by 2, which gives the mean girth; then multiply the length in feet by the square of one-fourth of the mean girth and the product will be the contents in cubic feet. This rule is commonly adopted, and gives four-fifths of the true contents, one-fifth being allowed to the purchaser for waste in sawing.

To measure inch boards, multiply the length in feet by the width in inches, and divide the product by 12. The quotient will be the contents in feet. For lumber 1½ inches thick, add ¼ to the quotient. If 1¼ inches thick, add ¼. If 1¼ inches thick, add ¼. If 2 inches thick, divide by 6 instead of by 12. If 2½ inches thick, add ¼ to the quotient and so on. If 3 inches thick, divide by 4. If 4 inches thick, divide by 3. If 6 inches thick, divide by 2.

COVERING CAPACITY OF SHINGLES

Average size of shingles—4 x 16 inches—is taken as a basis of calculation.

100 sq. ft. will require, laid 4 inches to the weather..... 900
100 sq. ft. will require, laid 4½ inches to the weather..... 800
100 sq. ft. will require, laid 5 inches to the weather..... 720
Three and one-half pounds of four-penny nails are required for laying 1,000 shingles.

Five to ten per cent. should be added to these figures for waste and shortage.

BOARD MEASURE

To ascertain how many board feet are contained in a piece of timber when all the dimensions are given. The size of a board in the first column at the left refers to the width and thickness in inches. The top column designates the length in feet.

SIZE.	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
1x8	8	9 $\frac{1}{2}$	10 $\frac{1}{2}$	12	13 $\frac{1}{2}$	14 $\frac{1}{2}$	16	17 $\frac{1}{2}$	18 $\frac{1}{2}$	20	21 $\frac{1}{2}$	22 $\frac{1}{2}$	24	25 $\frac{1}{2}$	26 $\frac{1}{2}$
1x10	10	11 $\frac{1}{2}$	13 $\frac{1}{2}$	15	16 $\frac{1}{2}$	18 $\frac{1}{2}$	20	21 $\frac{1}{2}$	23 $\frac{1}{2}$	25	26 $\frac{1}{2}$	28 $\frac{1}{2}$	30	31 $\frac{1}{2}$	33 $\frac{1}{2}$
1x12	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
1x14	14	16 $\frac{1}{2}$	18 $\frac{1}{2}$	21	23 $\frac{1}{2}$	25 $\frac{1}{2}$	28	30 $\frac{1}{2}$	32 $\frac{1}{2}$	35	37 $\frac{1}{2}$	39 $\frac{1}{2}$	42	44 $\frac{1}{2}$	46 $\frac{1}{2}$
1x16	16	18 $\frac{1}{2}$	21 $\frac{1}{2}$	24	26 $\frac{1}{2}$	29 $\frac{1}{2}$	32	34 $\frac{1}{2}$	37 $\frac{1}{2}$	40	42 $\frac{1}{2}$	45 $\frac{1}{2}$	48	50 $\frac{1}{2}$	53 $\frac{1}{2}$
2x3	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
2x4	8	9 $\frac{1}{2}$	10 $\frac{1}{2}$	12	13 $\frac{1}{2}$	14 $\frac{1}{2}$	16	17 $\frac{1}{2}$	18 $\frac{1}{2}$	20	21 $\frac{1}{2}$	22 $\frac{1}{2}$	24	25 $\frac{1}{2}$	26 $\frac{1}{2}$
2x6	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
2x8	16	18 $\frac{1}{2}$	21 $\frac{1}{2}$	24	26 $\frac{1}{2}$	29 $\frac{1}{2}$	32	34 $\frac{1}{2}$	37 $\frac{1}{2}$	40	42 $\frac{1}{2}$	45 $\frac{1}{2}$	48	50 $\frac{1}{2}$	53 $\frac{1}{2}$
2x10	20	23 $\frac{1}{2}$	26 $\frac{1}{2}$	30	33 $\frac{1}{2}$	36 $\frac{1}{2}$	40	43 $\frac{1}{2}$	46 $\frac{1}{2}$	50	53 $\frac{1}{2}$	56 $\frac{1}{2}$	60	63 $\frac{1}{2}$	66 $\frac{1}{2}$
2x12	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80
2x14	28	32 $\frac{1}{2}$	37 $\frac{1}{2}$	42	46 $\frac{1}{2}$	51 $\frac{1}{2}$	56	60 $\frac{1}{2}$	65 $\frac{1}{2}$	70	74 $\frac{1}{2}$	79 $\frac{1}{2}$	84	88 $\frac{1}{2}$	93 $\frac{1}{2}$
2x16	32	37 $\frac{1}{2}$	42 $\frac{1}{2}$	48	53 $\frac{1}{2}$	58 $\frac{1}{2}$	64	69 $\frac{1}{2}$	74 $\frac{1}{2}$	80	85 $\frac{1}{2}$	90 $\frac{1}{2}$	96	101 $\frac{1}{2}$	106 $\frac{1}{2}$
3x4	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
3x6	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
3x8	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80
3x10	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
3x12	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
3x14	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140
3x16	48	56	64	72	80	88	96	104	112	120	128	136	144	152	160
4x4	16	18 $\frac{1}{2}$	21 $\frac{1}{2}$	24	26 $\frac{1}{2}$	29 $\frac{1}{2}$	32	34 $\frac{1}{2}$	37 $\frac{1}{2}$	40	42 $\frac{1}{2}$	45 $\frac{1}{2}$	48	50 $\frac{1}{2}$	53 $\frac{1}{2}$
4x6	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80
4x8	32	37 $\frac{1}{2}$	42 $\frac{1}{2}$	48	53 $\frac{1}{2}$	58 $\frac{1}{2}$	64	69 $\frac{1}{2}$	74 $\frac{1}{2}$	80	85 $\frac{1}{2}$	90 $\frac{1}{2}$	96	101 $\frac{1}{2}$	106 $\frac{1}{2}$
4x10	40	46 $\frac{1}{2}$	53 $\frac{1}{2}$	60	66 $\frac{1}{2}$	73 $\frac{1}{2}$	80	86 $\frac{1}{2}$	93 $\frac{1}{2}$	100	106 $\frac{1}{2}$	113 $\frac{1}{2}$	120	126 $\frac{1}{2}$	133 $\frac{1}{2}$
4x12	48	56	64	72	80	88	96	104	112	120	128	136	144	152	160
4x14	56	65 $\frac{1}{2}$	74 $\frac{1}{2}$	84	93 $\frac{1}{2}$	102 $\frac{1}{2}$	112	121 $\frac{1}{2}$	130 $\frac{1}{2}$	140	149 $\frac{1}{2}$	158 $\frac{1}{2}$	168	177 $\frac{1}{2}$	186 $\frac{1}{2}$
4x16	64	74 $\frac{1}{2}$	85 $\frac{1}{2}$	96	106 $\frac{1}{2}$	117 $\frac{1}{2}$	128	138 $\frac{1}{2}$	149 $\frac{1}{2}$	160	170 $\frac{1}{2}$	181 $\frac{1}{2}$	192	202 $\frac{1}{2}$	213 $\frac{1}{2}$
6x6	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
6x8	48	56	64	72	80	88	96	104	112	120	128	136	144	152	160
6x10	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
6x12	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240
6x14	84	98	112	126	140	154	168	182	196	210	224	238	252	266	280
6x16	96	112	128	144	160	176	192	208	224	240	256	272	288	304	320
8x8	64	74 $\frac{1}{2}$	85 $\frac{1}{2}$	96	106 $\frac{1}{2}$	117 $\frac{1}{2}$	128	138 $\frac{1}{2}$	149 $\frac{1}{2}$	160	170 $\frac{1}{2}$	181 $\frac{1}{2}$	192	202 $\frac{1}{2}$	213 $\frac{1}{2}$
8x10	80	93 $\frac{1}{2}$	106 $\frac{1}{2}$	120	133 $\frac{1}{2}$	146 $\frac{1}{2}$	160	173 $\frac{1}{2}$	186 $\frac{1}{2}$	200	213 $\frac{1}{2}$	226 $\frac{1}{2}$	240	253 $\frac{1}{2}$	266 $\frac{1}{2}$
8x12	96	112	128	144	160	176	192	208	224	240	256	272	288	304	320
8x14	112	130 $\frac{1}{2}$	149 $\frac{1}{2}$	168	186 $\frac{1}{2}$	205 $\frac{1}{2}$	224	242 $\frac{1}{2}$	261 $\frac{1}{2}$	280	298 $\frac{1}{2}$	317 $\frac{1}{2}$	336	354 $\frac{1}{2}$	373 $\frac{1}{2}$
8x16	128	149 $\frac{1}{2}$	170 $\frac{1}{2}$	192	213 $\frac{1}{2}$	234 $\frac{1}{2}$	256	277 $\frac{1}{2}$	298 $\frac{1}{2}$	320	341 $\frac{1}{2}$	362 $\frac{1}{2}$	384	405 $\frac{1}{2}$	426 $\frac{1}{2}$
10x10	100	116 $\frac{1}{2}$	133 $\frac{1}{2}$	150	166 $\frac{1}{2}$	183 $\frac{1}{2}$	200	216 $\frac{1}{2}$	233 $\frac{1}{2}$	250	266 $\frac{1}{2}$	283 $\frac{1}{2}$	300	316 $\frac{1}{2}$	333 $\frac{1}{2}$
10x12	120	140	160	180	200	220	240	260	280	300	320	340	360	380	400
10x14	140	163 $\frac{1}{2}$	186 $\frac{1}{2}$	210	233 $\frac{1}{2}$	256 $\frac{1}{2}$	280	303 $\frac{1}{2}$	326 $\frac{1}{2}$	350	373 $\frac{1}{2}$	396 $\frac{1}{2}$	410	443 $\frac{1}{2}$	466 $\frac{1}{2}$
10x16	160	186 $\frac{1}{2}$	213 $\frac{1}{2}$	240	266 $\frac{1}{2}$	293 $\frac{1}{2}$	320	346 $\frac{1}{2}$	373 $\frac{1}{2}$	400	426 $\frac{1}{2}$	453 $\frac{1}{2}$	480	506 $\frac{1}{2}$	533 $\frac{1}{2}$
12x12	144	168	192	216	240	264	288	312	336	360	384	408	432	456	480
12x14	168	196	224	252	280	308	336	364	392	420	448	476	504	532	560
12x16	192	224	256	288	320	352	384	416	448	480	512	544	576	608	640
14x14	196	228 $\frac{1}{2}$	261 $\frac{1}{2}$	294	326 $\frac{1}{2}$	359 $\frac{1}{2}$	392	424 $\frac{1}{2}$	457 $\frac{1}{2}$	490	522 $\frac{1}{2}$	555 $\frac{1}{2}$	588	620 $\frac{1}{2}$	653 $\frac{1}{2}$
14x16	224	261 $\frac{1}{2}$	298 $\frac{1}{2}$	336	373 $\frac{1}{2}$	410 $\frac{1}{2}$	448	485 $\frac{1}{2}$	522 $\frac{1}{2}$	560	597 $\frac{1}{2}$	634 $\frac{1}{2}$	672	709 $\frac{1}{2}$	746 $\frac{1}{2}$
16x16	256	298 $\frac{1}{2}$	341 $\frac{1}{2}$	384	426 $\frac{1}{2}$	469 $\frac{1}{2}$	512	554 $\frac{1}{2}$	597 $\frac{1}{2}$	640	682 $\frac{1}{2}$	725 $\frac{1}{2}$	768	810 $\frac{1}{2}$	853 $\frac{1}{2}$

Note.—By simply multiplying or dividing the above amounts, the number of feet contained in other dimensions can be obtained.

CIRCUMFERENCES AND AREAS OF CIRCLES

Diam.	Circumference.	Area.	Diam.	Circumference.	Area.	Diam.	Circumference.	Area.
$\frac{1}{8}$	.098	.0007	9	28.27	63.61	47	147.65	1734.94
$\frac{1}{6}$	.196	.0030	$\frac{1}{4}$	29.05	67.20	48	150.80	1809.56
$\frac{1}{4}$	.392	.0122	$\frac{1}{2}$	29.84	70.88	49	153.94	1885.74
$\frac{3}{8}$	.589	.0276	$\frac{3}{4}$	30.63	74.66	50	157.08	1963.50
$\frac{1}{2}$	.785	.0490	10	31.41	78.53	51	160.22	2042.82
$\frac{5}{8}$	.981	.0766	$\frac{1}{4}$	32.20	82.51	52	163.36	2123.72
$\frac{3}{4}$	1.178	.1104	$\frac{1}{2}$	32.98	86.59	53	166.50	2206.18
$\frac{7}{8}$	1.374	.1503	$\frac{3}{4}$	33.77	90.76	54	169.65	2290.22
$\frac{1}{2}$	1.570	.1963	11	34.55	95.03	55	172.79	2375.83
$\frac{5}{8}$	1.767	.2485	$\frac{1}{4}$	35.34	99.40	56	175.93	2463.01
$\frac{3}{4}$	1.963	.3067	$\frac{1}{2}$	36.12	103.86	57	179.07	2551.76
$\frac{7}{8}$	2.159	.3712	$\frac{3}{4}$	36.91	108.43	58	182.21	2642.08
1	2.356	.4417	12	37.69	113.09	59	185.35	2733.97
$\frac{1}{8}$	2.552	.5184	$\frac{1}{4}$	38.48	117.85	60	188.50	2827.43
$\frac{1}{6}$	2.748	.6013	$\frac{1}{2}$	39.27	122.71	61	191.64	2922.47
$\frac{1}{4}$	2.945	.6902	$\frac{3}{4}$	40.05	127.67	62	194.78	3019.07
1	3.141	.7854	13	40.84	132.73	63	197.92	3117.25
$\frac{1}{8}$	3.534	.9940	$\frac{1}{4}$	41.62	137.88	64	201.06	3216.99
$\frac{1}{6}$	3.927	1.227	$\frac{1}{2}$	42.41	143.13	65	204.20	3318.31
$\frac{1}{4}$	4.319	1.484	$\frac{3}{4}$	43.19	148.48	66	207.34	3421.19
$\frac{3}{8}$	4.712	1.767	14	43.98	153.93	67	210.49	3525.65
$\frac{1}{2}$	5.105	2.073	$\frac{1}{4}$	44.76	159.48	68	213.63	3631.68
$\frac{5}{8}$	5.497	2.405	$\frac{1}{2}$	45.55	165.13	69	216.77	3739.28
$\frac{3}{4}$	5.890	2.761	$\frac{3}{4}$	46.33	170.87	70	219.91	3848.25
2	6.283	3.141	15	47.12	176.78	71	223.05	3959.19
$\frac{1}{8}$	6.675	3.546	16	50.26	201.06	72	226.19	4071.50
$\frac{1}{6}$	7.068	3.976	17	53.40	226.98	73	229.34	4185.39
$\frac{1}{4}$	7.461	4.430	18	56.54	254.47	74	232.48	4300.84
$\frac{3}{8}$	7.854	4.908	19	59.69	283.53	75	235.62	4417.86
$\frac{1}{2}$	8.246	5.411	20	62.83	314.16	76	238.76	4536.46
$\frac{5}{8}$	8.639	5.939	21	65.97	346.36	77	241.90	4656.63
$\frac{3}{4}$	9.032	6.491	22	69.11	380.13	78	245.04	4778.36
3	9.424	7.068	23	72.25	415.48	79	248.19	4901.67
$\frac{1}{8}$	10.21	8.295	24	75.39	452.39	80	251.33	5026.55
$\frac{1}{6}$	10.99	9.621	25	78.54	490.87	81	254.07	5153.00
$\frac{1}{4}$	11.78	11.044	26	81.68	530.93	82	257.61	5281.02
$\frac{3}{8}$	12.56	12.566	27	84.82	572.56	83	260.75	5410.61
$\frac{1}{2}$	13.35	14.186	28	87.96	615.75	84	263.89	5541.77
$\frac{5}{8}$	14.13	15.904	29	91.10	660.52	85	267.04	5674.50
$\frac{3}{4}$	14.92	17.720	30	94.24	706.86	86	270.18	5808.80
5	15.70	19.635	31	97.38	754.77	87	273.32	5944.68
$\frac{1}{8}$	16.49	21.647	32	100.53	804.25	88	276.46	6082.12
$\frac{1}{6}$	17.27	23.758	33	103.67	855.30	89	279.60	6221.14
$\frac{1}{4}$	18.06	25.967	34	106.81	907.92	90	282.74	6361.73
$\frac{3}{8}$	18.84	28.274	35	109.96	962.11	91	285.88	6503.88
$\frac{1}{2}$	19.63	30.679	36	113.10	1017.88	92	289.03	6647.61
$\frac{5}{8}$	20.42	33.183	37	116.24	1075.21	93	292.17	6792.91
$\frac{3}{4}$	21.20	35.784	38	119.38	1134.11	94	295.31	6939.78
7	21.99	38.484	39	122.52	1194.59	95	298.45	7088.22
$\frac{1}{8}$	22.77	41.282	40	125.66	1256.64	96	301.59	7238.23
$\frac{1}{6}$	23.56	44.178	41	128.81	1320.25	97	304.73	7389.81
$\frac{1}{4}$	24.34	47.173	42	131.95	1385.44	98	307.88	7542.96
$\frac{3}{8}$	25.13	50.265	43	135.09	1452.20	99	311.02	7697.69
$\frac{1}{2}$	25.91	53.456	44	138.23	1520.53	100	314.16	7853.98
$\frac{5}{8}$	26.70	56.745	45	141.37	1590.43	101	317.30	8011.85
$\frac{3}{4}$	27.48	60.132	46	144.51	1661.90	102	320.44	8171.28

CONVERSION OF VARIOUS TABLES

Feet multiplied by .00019 equals miles.
 Yards multiplied by .0006 equals miles.
 Links multiplied by .22 equals yards.
 Feet multiplied by 1.515 equals links.
 Square inches multiplied by .00695 equals square feet.
 Circular inches multiplied by .00546 equals square feet.
 Square feet multiplied by .111 equals square yards.
 Acres multiplied by .4840 equals square yards.
 Square yards multiplied by .0002066 equals acres.
 Width in chains multiplied by .8 equals acres per mile.
 Cubic feet multiplied by .03704 equals cubic yards.
 Cubic inches multiplied by .00058 equals cubic feet.
 U. S. bushels multiplied by .0461 equals cubic yards.
 U. S. bushels multiplied by 1.2444 equals cubic feet.
 U. S. bushels multiplied by 5.874 equals cubic inches.
 Cubic feet multiplied by .8036 equals U. S. bushels.
 Cubic inches multiplied by .000465 equals U. S. bushels.
 U. S. gallons multiplied by .13367 equals cubic feet.
 U. S. gallons multiplied by .231 equals cubic inches.
 Cubic feet multiplied by 7.48 equals U. S. gallons.
 Cylindrical feet multiplied by .0034 equals U. S. gallons.
 Cubic foot of water multiplied by 62.5 equals pounds avoird.
 Cubic inch of water multiplied by .03608 equals pounds avoird.
 Cylindrical inch of water multiplied by .02842 equals lbs. avoird.
 Cylindrical foot of water multiplied by 49.1 equals pounds avoird.
 Cubic inches multiplied by .004329 equals U. S. gallons.
 Cylindrical feet multiplied by 5.874 equals U. S. gallons.
 U. S. gallons of water multiplied by 268.8 equals one ton.
 Cubic feet of water multiplied by 35.88 equals one ton.
 Cylindrical foot of water multiplied by 5.875 equals U. S. gallons.
 Diameter of a circle multiplied by 3.14159265 equals circumference.
 Diameter of a circle multiplied by .7854 equals side of an inscribed square.
 Square of a diameter multiplied by .7854 equals area of circle.

Circumference of a circle multiplied by .31831 equals diameter.
 Side of a square multiplied by 1.128 equals diam. of equal circle.
 Square foot of an area multiplied by 1.12837 equals diam. of equal circle.
 Square of the diam. of a sphere multiplied by 3.1416 equals convex surface.
 Cube of the diam. of a sphere multiplied by .5236 equals solidity.
 Diameter of a sphere multiplied by .806 equals dimensions of equal cube.
 Diameter of a sphere multiplied by .6667 equals length of equal cylinder.
 Cubic inches multiplied by .003607 equals imperial gallons.
 Cubic feet multiplied by .6232 equals imperial gallons.
 Lineal yards multiplied by .000568 equals statute miles.
 Column of water 12 in. high, 1 in. in diameter, equals .341 lbs.
 183.346 circular inches equals 1 square foot.
 2200 cylindrical inches equals 1 cubic foot.

NUMBER OF GALLONS CONTAINED IN CIRCULAR TANKS

DIAMETER	WHEN THE DEPTH IS							
	3-feet	4-feet	5-feet	6-feet	7-feet	8-feet	9-feet	10-feet
4 feet....	234	312	390	468	546	624	702	780
5 "....	363	484	605	726	847	968	1089	1210
6 "....	515	700	875	1050	1230	1400	1585	1750
7 "....	720	960	1200	1440	1680	1920	2160	2400
8 "....	933	1244	1555	1866	2177	2488	2799	3110
9 "....	1185	1480	1775	2070	2365	2660	2955	3250
10 "....	1464	1952	2440	2928	3416	3904	4392	4880
11 "....	1776	2368	2960	3552	4144	4736	5328	5920
12 "....	2112	2816	3520	4224	4928	5632	6336	7040

HEIGHT AND WEIGHT OF MEN

Table of Average Height and Weight of Males, Based on Analysis of 74,162 Accepted Applicants for Life Insurance as Reported to the Association of Life Insurance Medical Directors.

HEIGHT	Age 15-24	Age 25-29	Age 30-34	Age 35-39	Age 40-44	Age 45-49	Age 50-54	Age 55-59	Age 60-64	Age 65-69
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
5 feet.....	120	125	128	131	133	134	134	134	134	...
5 feet 1 inch.....	122	126	129	131	134	136	136	136	136	...
5 feet 2 inches.....	124	128	131	133	136	138	138	138	138	...
5 feet 3 inches.....	127	131	134	136	139	141	141	141	141	...
5 feet 4 inches.....	131	135	138	140	143	144	145	145	144	140
5 feet 5 inches.....	134	138	141	143	146	147	149	149	148	143
5 feet 6 inches.....	138	142	145	147	150	151	153	153	153	151
5 feet 7 inches.....	142	147	150	152	155	156	158	158	158	156
5 feet 8 inches.....	146	151	154	157	160	161	163	163	163	162
5 feet 9 inches.....	150	155	159	162	165	166	167	168	168	168
5 feet 10 inches.....	154	159	164	167	170	171	172	173	174	174
5 feet 11 inches.....	159	164	169	173	175	177	177	178	180	180
6 feet.....	165	170	175	179	180	183	182	183	185	185
6 feet 1 inch.....	170	177	181	185	186	189	188	189	189	189
6 feet 2 inches.....	176	184	188	192	194	196	194	194	192	192

HEIGHT AND WEIGHT OF WOMEN

The following table gives the relative height and weight of women, all ages. The weight of ordinary clothing, however, is included:

Height	Average	Minimum	Maximum
5 feet.....	115	98	132
5 feet 1 inch.....	120	102	138
5 feet 2 inches.....	125	106	144
5 feet 3 inches.....	130	111	150
5 feet 4 inches.....	135	115	155
5 feet 5 inches.....	140	119	161
5 feet 6 inches.....	143	121	165
5 feet 7 inches.....	145	123	167
5 feet 8 inches.....	148	126	170
5 feet 9 inches.....	155	131	179
5 feet 10 inches.....	160	136	184
5 feet 11 inches.....	165	138	190
6 feet.....	170	141	196

FACTS ABOUT THE HUMAN BODY

The average number of teeth is 32.
 The weight of the circulating blood is 29 lbs.
 The average weight of an adult is 150 lbs. 6 oz.
 The brain of a man exceeds twice that of any animal.
 The average weight of the brain of a man is 3½ lbs.; of a woman 2½ lbs. 11 oz.
 Five hundred and forty pounds, or one hoghead and one and a quarter pints of blood pass through the heart in one hour.
 A man breathes about 20 times a minute.
 The average height of an Englishman is 5 ft. 9 in.; of a Frenchman 5 ft. 4 in.; of a Belgian 5 ft. 6½ in.
 The heart sends nearly 10 lbs. of blood through the veins and arteries each beat, and makes four beats while we breathe once.
 One hundred and seventy-five million cells are in the lungs, which would cover a surface thirty times greater than the human body.
 The average of the pulse in infancy is 120 per minute; in manhood 80; at sixty years 60. The pulse of females is more rapid than that of males.

VALUE OF RARE UNITED STATES COINS

Gold		ONE DOLLAR	
Date	Value		
1863.....	\$5.00 to	\$10.00	
1864.....	6.00 to	12.00	
1875.....	10.00 to	15.00	
Other dates.....	1.50 to	6.00	
Common.....	1.50 to	1.75	

QUARTER EAGLES (\$2.50)	
1796, 1797, 1798.....	\$10.00 to \$18.00
1826.....	12.00 to 20.00
1804, 1805, 1806, 1807, 1808, 1821, 1824, 1825, 1827, 1830, 1833, 1834 with "E Pluribus Unum," 1842, 1863, 1875, 1881 and 1885 command premium of from \$3.00 to \$6.00.	

THREE-DOLLAR	
1873.....	\$9.00 to \$18.00
1875.....	20.00 to 30.00
1876.....	18.00 to 25.00

Some other dates as high as \$6.00.
Common dates, \$3.25 to \$3.75.

FOUR-DOLLAR	
1879.....	\$15.00 to \$25.00
1880.....	25.00 to 35.00

HALF EAGLES (\$5)	
1795, 1796, 1797, 1798.....	\$6.50 to \$30.00
1815.....	75.00 to 100.00
1819.....	12.00 to 20.00
1821.....	12.50 to 20.00
1822.....	75.00 to 150.00
1823 to 1833.....	7.50 to 25.00
1834, with "E Pluribus Unum".....	7.50 to 10.00
1875, without mint mark.....	7.50 to 10.00
1887, without mint mark.....	10.00 to 15.00

EAGLES (\$10)	
1795 to 1798.....	\$11.00 to \$30.00
1797 (small Eagle).....	20.00 to 22.00
1799, 1800, 1801, 1834, 1838.....	10.50 to 12.00
1873, 1875, 1876, 1877, without mint marks.....	12.00 to 20.00

DOUBLE EAGLES (\$20)	
1881 to 1887, without any mint mark.....	\$21.00 to \$30.00
1907, Flying Eagle, date in Roman letters.....	22.00 to 30.00

FIFTY-DOLLAR GOLD PIECES	
Round or octagon, any date.....	\$75.00 to \$110.00

Silver	
THREE-CENT PIECES	
1863.....	\$0.25 to \$0.50
1864.....	.75 to 1.00
1865 to 1873.....	.20 to .50

HALF DIMES	
1796.....	\$2.00 to \$5.00
1802.....	20.00 to 40.00
1794, 1795, 1797, 1800, 1801, 1835, 1846 and 1864 command a fair premium.	

DIMES	
1797.....	\$.75 to \$1.00
1802.....	2.00 to 4.00
1804.....	5.00 to 15.00

TWENTY-CENT PIECES	
1874.....	\$2.00 to \$4.00
1877 and 1878.....	.75 to 1.50

QUARTERS	
1796.....	\$2.00 to \$5.00
1804.....	1.50 to 5.00
1823.....	20.00 to 40.00
1827.....	30.00 to 50.00

1853, Liberty seated, without arrow heads at sides of date.....	2.00 to 4.00
1893, Columbian or Isabel.....	.30 to .40

HALF DOLLARS	
1796, Fillet Head, 15 stars.....	\$15.00 to \$30.00
1796, Fillet Head, 16 stars.....	20.00 to 35.00
1797, Fillet Head, 15 stars.....	20.00 to 35.00
1838, O between date and bust.....	15.00 to 30.00
1853, without arrow heads at date.....	20.00 to 30.00

DOLLARS	
1794, Head, flowing hair.....	\$25.00 to \$40.00
1804, Large Eagle.....	150.00 to 500.00
1836, Flying Eagle.....	15.00 to 25.00
1838, Flying Eagle.....	25.00 to 50.00
1839, Flying Eagle.....	25.00 to 35.00
1851, 1852, Liberty seated.....	15.00 to 25.00
1858, Liberty seated.....	12.00 to 25.00

Copper	
HALF CENTS	
1793.....	\$1.00 to \$3.00
1796.....	10.00 to 25.00
1831.....	5.00 to 10.00
1836.....	7.00 to 12.00
1840 to 1849.....	5.00 to 10.00
1852.....	5.00 to 8.00

Any half cent commands a premium of from 3c. to 10c.

CENTS (LARGE)	
1793, Chain, Ameri (instead of America).....	\$3.50 to \$10.00
1793, Chain America.....	2.50 to 7.00
1793, Liberty Cap.....	3.50 to 10.00
1799, Over 1798.....	5.00 to 25.00
1804.....	3.50 to 15.00

All other dates, if in good condition, command a premium, more or less.

SMALL CENTS	
1856 (Nickel), Flying Eagle.....	\$3.00 to \$5.00
1877 (Bronze), Indian Head.....	.05 to .25

TWO-CENT (BRONZE)	
1873.....	\$0.25 to \$1.50

Nickel	
THREE-CENT	
1877.....	\$1.00 to \$2.00

FIVE-CENT	
1877.....	\$.75 to \$2.00

TIME AT WHICH MONEY DOUBLES AT INTEREST

Rate per cent.	Simple interest	Compound interest
2.....	50 years	35 years, 1 day
2½.....	40 years	28 years, 26 days
3.....	33 years, 4 mos.	23 years, 164 days
3½.....	28 years, 208 days	20 years, 54 days
4.....	25 years	17 years, 246 days
4½.....	22 years, 81 days	15 years, 273 days
5.....	20 years	15 years, 75 days
6.....	16 years, 8 mos.	11 years, 327 days
7.....	14 years, 104 days	10 years, 89 days
8.....	12½ years	9 years, 2 days
9.....	11 years, 40 days	8 years, 16 days
10.....	10 years	7 years, 100 days

The foregoing table is a strong argument in favor of a savings bank account. The small interest earned in a year may not seem attractive, but when one considers that money at interest may be tripled in a life time the importance of this becomes apparent.

BIBLE IN ALIEN TONGUES

The Bible continues to break all records for translation into alien tongues. Another language has just been added to the long list by the completion of the Ibanag New Testament in the Philippines. The Old Testament is being brought out in the Panayan dialect, and the Pentateuch in Pampangan and Cebuano is ready for the printer. The Kurdish New Testament is well under way, and revisions are being made in Tagalog, Portuguese, the Wenli and Mandarin in China, Siamese and Zulu. The total issues for 1911, the ninety-sixth year of the existence of the American Bible Society, amounted to nearly 3,700,000 volumes, most of these being portions and not entire Bibles. Of the latter, however, there were more than 400,000. The total issues of the Society during its ninety-six years reach the gigantic figure of ninety-four million volumes.

VALUES OF FOREIGN COINS

Country	Legal standard	Monetary unit	Value in terms of U. S. money	(a) Remarks
Argentina.....	Gold.....	Peso.....	\$0.965	Currency: Depreciated paper, convertible at 44 per cent of face value.
Austria-Hungary.....	Gold.....	Crown.....	.203	
Belgium.....	Gold and silver.....	Franc.....	.193	Member of Latin Union; gold is the actual standard.
Bolivia.....	Gold.....	Boliviano.....	.389	12½ bolivianos equal 1 pound sterling.
Brazil.....	Gold.....	Milreis.....	.546	Currency: Government paper. Exchange rate about 2 cents to the milreis.
British Colonies in Australia and Africa.....	Gold.....	Pound sterling.....	4.8665	
Canada.....	Gold.....	Dollar.....	1.000	
Central Amer. States:				
Costa Rica.....	Gold.....	Colon.....	.465	Guatemala: Currency, inconvertible paper, exchange rate about 40 pesos = \$1.00.
British Honduras.....	Gold.....	Dollar.....	1.000	
Nicaragua.....	Gold.....	Cordoba.....	1.000	
Guatemala.....	Silver.....	Peso.....	.363	Honduras: Currency, bank notes.
Honduras.....				Salvador: Currency, convertible into silver on demand.
Chile.....	Gold.....	Peso.....	.365	Currency: Inconvertible paper; exchange rate, approximately, \$0.14.
China.....	Silver.....	Tael.....	.593	Canton..... Peking..... Shanghai..... Hongkong..... British..... Mexican.....
			.579	
			.543	
			.391	
			.391	
		Dollar.....	.394	
Colombia.....	Gold.....	Dollar.....	1.000	Currency: Inconvertible paper; exchange rate, approximately, \$105 paper to \$1 gold.
Denmark.....	Gold.....	Crown.....	.268	
Dominican Republic.....	Gold.....	Dollar.....	1.000	
Ecuador.....	Gold.....	Sucre.....	.487	
Egypt.....	Gold.....	Pound (100 piasters).....	4.943	The actual standard is the British pound sterling, which is legal tender for 97½ piasters.
Finland.....	Gold.....	Mark.....	.193	
France.....	Gold and silver.....	Franc.....	.193	Member of Latin Union; gold is the actual standard.
German.....	Gold.....	Mark.....	.238	
Great Britain.....	Gold.....	Pound sterling.....	4.8665	
Greece.....	Gold and silver.....	Drachma.....	.193	Member of Latin Union; gold is the actual standard.
Haiti.....	Gold.....	Gourde.....	.965	Currency: Inconvertible paper; exchange rate, approximately, \$0.16.
India [British].....	Gold.....	Rupee.....	.324	(15 rupees equal 1 pound sterling.)
Italy.....	Gold and silver.....	Lira.....	.193	Member of Latin Union; gold is the actual standard.
Japan.....	Gold.....	Yen.....	.498	
Liberia.....	Gold.....	Dollar.....	1.000	Currency: Depreciated silver token coins. Customs duties are collected in gold.
Mexico.....	Gold.....	Peso.....	.498	Mexican exchange rate violently fluctuating approximately, \$0.15.
Netherlands.....	Gold.....	Florin.....	.402	
Newfoundland.....	Gold.....	Dollar.....	1.014	
Norway.....	Gold.....	Crown.....	.268	
Panama.....	Gold.....	Balboa.....	1.000	
Paraguay.....	Silver.....	Peso.....	.363	Currency: Depreciated paper, exchange rate 1,550 per cent.
Persia.....	Gold and silver.....	Kran.....	.170	This is the value of the gold kran; exchange value of silver kran, approximately, \$0.0875.
Peru.....	Gold.....	Libra.....	4.8665	
Philippine Islands.....	Gold.....	Peso.....	.500	
Portugal.....	Gold.....	Escudo.....	1.080	Currency: Inconvertible paper; exchange rate, approximately, \$0.70½.
Roumania.....	Gold.....	Leu.....	.193	
Russia.....	Gold.....	Ruble.....	.515	
Servia.....	Gold.....	Dinar.....	.193	
Siam.....	Gold.....	Tical.....	.371	
Spain.....	Gold and silver.....	Peseta.....	.193	Valuation is for the gold peseta; currency is silver circulating above its metallic value; exchange value, approximately, \$0.20.
Straits Settlements.....	Gold.....	Dollar.....	.567	
Sweden.....	Gold.....	Crown.....	.268	
Switzerland.....	Gold.....	Franc.....	.193	Member of Latin Union; gold is the actual standard.
Turkey.....	Gold.....	Piaster.....	.044	100 piasters equal to the Turkish £.
Uruguay.....	Gold.....	Peso.....	1.034	
Venezuela.....	Gold.....	Bolivar.....	.193	

a The exchange rates shown under this heading are recent quotations and given as an indication of the values of currencies which are fluctuating in their relation to the legal standard.

RULES AND TABLES FOR COMPUTING INTEREST

ONE DOLLAR INTEREST TABLE

Days	3%	4%	5%	6%	7%
1.....	.00008	.00011	.00013	.00016	.00019
2.....	.00017	.00022	.00027	.00033	.00038
3.....	.00025	.00033	.00041	.00050	.00058
4.....	.00033	.00044	.00055	.00066	.00077
5.....	.00042	.00056	.00069	.00083	.00097
6.....	.00050	.00067	.00083	.00100	.00116
7.....	.00058	.00078	.00097	.00116	.00136
8.....	.00067	.00089	.00111	.00133	.00155
9.....	.00075	.00100	.00125	.00150	.00175
10.....	.00083	.00111	.00138	.00166	.00194
11.....	.00092	.00122	.00152	.00183	.00213
12.....	.00100	.00133	.00166	.00200	.00233
13.....	.00108	.00144	.00180	.00216	.00252
14.....	.00117	.00156	.00194	.00233	.00272
15.....	.00125	.00167	.00208	.00250	.00291
16.....	.00133	.00178	.00222	.00266	.00311
17.....	.00142	.00189	.00236	.00283	.00330
18.....	.00150	.00200	.00250	.00300	.00350
19.....	.00158	.00211	.00263	.00316	.00369
20.....	.00167	.00222	.00277	.00333	.00388
21.....	.00175	.00233	.00291	.00350	.00408
22.....	.00183	.00244	.00305	.00366	.00427
23.....	.00192	.00256	.00319	.00383	.00447
24.....	.00200	.00267	.00333	.00400	.00466
25.....	.00208	.00278	.00347	.00416	.00486
26.....	.00217	.00289	.00361	.00433	.00503
27.....	.00225	.00300	.00375	.00450	.00525
28.....	.00233	.00311	.00388	.00466	.00544
29.....	.00242	.00322	.00402	.00483	.00563
30.....	.00250	.00333	.00416	.00500	.00583
Months					
1.....	.00250	.00333	.00416	.00500	.00583
2.....	.00500	.00667	.00833	.01000	.01166
3.....	.00750	.01000	.01250	.01500	.01750
4.....	.01000	.01333	.01666	.02000	.02333
5.....	.01250	.01667	.02083	.02500	.02916
6.....	.01500	.02000	.02500	.03000	.03500
7.....	.01750	.02333	.02916	.03500	.04083
8.....	.02000	.02667	.03333	.04000	.04666
9.....	.02250	.03000	.03750	.04500	.05250
10.....	.02500	.03333	.04166	.05000	.05833
11.....	.02750	.03667	.04583	.05500	.06416
Years					
1.....	.03	.04	.05	.06	.07
2.....	.06	.08	.10	.12	.14
3.....	.09	.12	.15	.18	.21
4.....	.12	.16	.20	.24	.28
5.....	.15	.20	.25	.30	.35

SIMPLE RULES FOR COMPUTING INTEREST

The following will be found to be excellent rules for finding the interest on any principal for any number of days. When the principal contains cents, point off four places from the right of the result to express the interest in dollars and cents. When the principal contains dollars only, point off two places.

Two per cent—Multiply the principal by the number of days to run, and divide by 180.

Two and one-half per cent—Multiply by number of days, and divide by 144.

Three per cent—Multiply by number of days, and divide by 120.

Three and one-half per cent—Multiply by number of days, and divide by 102.86.

Four per cent—Multiply by number of days, and divide by 90.

Five per cent—Multiply by number of days, and divide by 72.

Six per cent—Multiply by number of days, and divide by 60.

Seven per cent—Multiply by number of days, and divide by 51.43.

Eight per cent—Multiply by number of days, and divide by 45.
 Nine per cent—Multiply by number of days, and divide by 40.
 Ten per cent—Multiply by number of days, and divide by 36.
 Twelve per cent—Multiply by number of days, and divide by 30.
 Fifteen per cent—Multiply by number of days, and divide by 24.

INTEREST RATES AND STATUTE OF LIMITATIONS

State	Interest Rate		Limitations		
	Legal rate	By contract	Judgments	Notes	Open Accts.
	Per cent.	Per cent.	Years	Years	Years
Alabama.....	8	8	20	16	3
Arkansas.....	6	10	10	5	3
Arizona.....	6	Any	5	4	3
California.....	7	Any	5	4	2
Colorado.....	8	Any	20	6	6
Connecticut.....	6	6	..	..	6
Delaware.....	6	6	10	6	3
Dist. of Columbia	6	10	12	3	3
Florida.....	8	10	20	5	2
Georgia.....	7	8	7	6	4
Idaho.....	7	12	6	5	4
Illinois.....	5	7	20	10	5
Indiana.....	6	8	20	10	6
Iowa.....	6	8	20	10	5
Kansas.....	6	10	5	5	3
Kentucky.....	6	6	15	15	15
Louisiana.....	5	8	10	5	3
Maine.....	6	Any	20	*20	6
Maryland.....	6	6	12	3	3
Massachusetts.....	6	Any	20	6	6
Michigan.....	5	10	6	6	6
Minnesota.....	7	10	10	6	6
Mississippi.....	6	10	7	6	3
Missouri.....	6	8	10	10	5
Montana.....	8	Any	10	8	5
Nebraska.....	7	10	15	5	0
Nevada.....	7	Any	6	6	4
New Hampshire.....	6	6	20	6	6
New Jersey.....	6	6	20	6	6
New Mexico.....	6	12	7	6	4
New York.....	6	6	20	6	6
North Carolina.....	6	6	10	3	3
North Dakota.....	7	12	10	6	6
Ohio.....	6	8	6	15	6
Oklahoma.....	7	12	1	5	3
Oregon.....	6	10	10	6	6
Pennsylvania.....	6	6	5	6	6
Rhode Island.....	6	Any	20	6	6
South Carolina.....	7	8	10	6	6
South Dakota.....	7	12	10	6	6
Tennessee.....	6	6	10	6	6
Texas.....	6	10	10	4	2
Utah.....	8	Any	8	6	4
Vermont.....	6	6	8	6	6
Virginia.....	6	6	20	5	2
Washington.....	6	12	6	6	1
West Virginia.....	6	6	10	10	3
Wisconsin.....	6	10	20	6	6
Wyoming.....	8	12	5	5	8

*Of record.

The largest national bank in the United States is the National City Bank in New York City, with a capital of \$25,000,000, deposits of about \$150,000,000, and resources of \$312,000,000.

TABLE OF APPROXIMATE INCOME FROM STOCKS PAYING FROM 4% TO 15%

Selling Price	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%
85	4.71	5.88	7.06	8.24	9.41	10.59	11.76	12.94	14.11	15.29	16.47	17.64
86	4.65	5.81	6.98	8.14	9.30	10.46	11.62	12.79	13.95	15.11	16.27	17.44
87	4.60	5.75	6.90	8.05	9.20	10.34	11.49	12.64	13.79	14.94	16.09	17.24
88	4.55	5.68	6.82	7.95	9.09	10.23	11.36	12.50	13.61	14.77	15.91	17.04
89	4.49	5.62	6.74	7.87	8.99	10.11	11.23	12.36	13.48	14.60	15.73	16.85
90	4.44	5.56	6.67	7.78	8.89	10.00	11.11	12.22	13.33	14.44	15.55	16.66
91	4.40	5.49	6.59	7.69	8.79	9.89	10.98	12.09	13.18	14.28	15.38	16.48
92	4.35	5.43	6.52	7.61	8.70	9.78	10.87	11.96	13.04	14.13	15.21	16.30
93	4.30	5.38	6.45	7.53	8.60	9.67	10.75	11.83	12.90	13.98	15.05	16.13
94	4.26	5.32	6.38	7.45	8.51	9.57	10.64	11.70	12.77	13.83	14.89	15.95
95	4.21	5.26	6.32	7.37	8.42	9.47	10.53	11.58	12.63	13.68	14.73	15.79
96	4.17	5.21	6.25	7.29	8.33	9.39	10.42	11.46	12.50	13.54	14.58	15.62
97	4.12	5.15	6.19	7.22	8.25	9.28	10.31	11.34	12.37	13.40	14.43	15.46
98	4.08	5.10	6.12	7.14	8.16	9.17	10.20	11.22	12.24	13.26	14.28	15.30
99	4.04	5.05	6.06	7.07	8.08	9.09	10.10	11.11	12.12	13.12	14.14	15.15
100	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00
101	3.96	4.95	5.94	6.93	7.92	8.91	9.90	10.89	11.88	12.87	13.86	14.85
102	3.92	4.90	5.88	6.86	7.84	8.82	9.80	10.78	11.76	12.74	13.72	14.70
103	3.88	4.85	5.83	6.80	7.77	8.74	9.71	10.68	11.65	12.62	13.59	14.56
104	3.85	4.81	5.77	6.73	7.69	8.65	9.62	10.58	11.54	12.50	13.46	14.42
105	3.81	4.76	5.71	6.67	7.67	8.57	9.52	10.48	11.43	12.38	13.33	14.28
106	3.77	4.72	5.66	6.60	7.55	8.49	9.43	10.38	11.32	12.26	13.20	14.15
107	3.74	4.67	5.61	6.54	7.48	8.41	9.34	10.28	11.21	12.15	13.08	14.02
108	3.70	4.63	5.56	6.48	7.41	8.31	9.26	10.18	11.11	12.03	12.96	13.88
109	3.67	4.59	5.50	6.42	7.34	8.26	9.17	10.09	11.01	11.92	12.84	13.76
110	3.64	4.55	5.45	6.36	7.27	8.18	9.09	10.00	10.90	11.81	12.72	13.63
112½	3.56	4.44	5.33	6.22	7.11	8.00	8.89	9.77	10.67	11.46	12.44	13.33
115	3.48	4.35	5.22	6.09	6.96	7.82	8.70	9.56	10.43	11.30	12.17	13.04
117½	3.40	4.26	5.11	5.96	6.81	7.66	8.51	9.36	10.21	11.06	12.00	12.76
120	3.33	4.17	5.00	5.83	6.67	7.50	8.33	9.17	10.00	10.83	11.66	12.50
122½	3.27	4.08	4.90	5.71	6.53	7.35	8.16	8.98	9.80	10.61	11.43	12.24
125	3.20	4.00	4.80	5.60	6.40	7.20	8.00	8.80	9.60	10.40	11.20	12.00
127½	3.14	3.92	4.71	5.49	6.27	7.06	7.84	8.63	9.41	10.15	10.98	11.76
130	3.08	3.85	4.62	5.38	6.15	6.92	7.69	8.46	9.23	10.00	10.77	11.54
132½	3.02	3.77	4.53	5.28	6.04	6.80	7.55	8.30	9.06	9.81	10.56	11.32
135	2.96	3.71	4.44	5.19	5.93	6.67	7.41	8.15	8.89	9.63	10.37	11.11
137½	2.91	3.64	4.36	5.09	5.82	6.55	7.27	8.00	8.73	9.45	10.10	10.90
140	2.86	3.57	4.29	5.00	5.71	6.43	7.14	7.86	8.57	9.28	10.00	10.71
142½	2.81	3.51	4.21	4.91	5.61	6.31	7.08	7.72	8.42	9.12	9.82	10.52
145	2.76	3.45	4.14	4.83	5.52	6.21	6.90	7.59	8.28	8.96	9.63	10.34
147½	2.71	3.39	4.07	4.75	5.42	6.10	6.78	7.45	8.14	8.81	9.49	10.17
150	2.67	3.33	4.00	4.67	5.33	6.00	6.67	7.33	8.00	8.66	9.33	10.00
152½	2.62	3.28	3.93	4.59	5.25	5.90	6.56	7.20	7.87	8.52	9.12	9.83
155	2.58	3.23	3.87	4.52	5.16	5.80	6.45	7.09	7.74	8.39	9.03	9.68
157½	2.54	3.17	3.81	4.44	5.08	5.71	6.35	6.98	7.62	8.25	8.89	9.52
160	2.50	3.13	3.75	4.38	5.00	5.63	6.25	6.87	7.50	8.12	8.75	9.37
162½	2.46	3.08	3.69	4.31	4.92	5.54	6.15	6.77	7.38	8.00	8.61	9.23
165	2.42	3.03	3.64	4.24	4.85	5.46	6.06	6.66	7.26	7.88	8.48	9.09
167½	2.39	2.99	3.58	4.18	4.78	5.38	5.97	6.57	7.16	7.76	8.36	8.95
170	2.35	2.94	3.53	4.12	4.71	5.29	5.88	6.47	7.06	7.65	8.24	8.82
172½	2.32	2.90	3.48	4.06	4.64	5.21	5.80	6.37	6.96	7.54	8.12	8.69
175	2.29	2.86	3.43	4.00	4.57	5.14	5.71	6.28	6.86	7.43	8.00	8.57
177½	2.25	2.82	3.38	3.94	4.51	5.07	5.63	6.19	6.76	7.32	7.89	8.45
180	2.22	2.78	3.33	3.89	4.44	5.00	5.56	6.11	6.67	7.22	7.78	8.33
182½	2.19	2.74	3.29	3.84	4.38	4.93	5.48	6.02	6.58	7.12	7.67	8.22
185	2.16	2.70	3.24	3.78	4.32	4.86	5.41	5.94	6.49	7.02	7.57	8.10
187½	2.13	2.67	3.20	3.73	4.27	4.79	5.33	5.86	6.40	6.93	7.47	8.00
190	2.11	2.63	3.16	3.68	4.21	4.73	5.26	5.79	6.32	6.84	7.37	7.89
192½	2.08	2.60	3.12	3.64	4.16	4.67	5.19	5.71	6.23	6.75	7.27	7.78
195	2.05	2.56	3.08	3.59	4.10	4.61	5.13	5.64	6.15	6.66	7.18	7.69
197½	2.03	2.53	3.04	3.54	4.05	4.54	5.06	5.57	6.08	6.58	7.09	7.59
200	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50
205	1.95	2.44	2.93	3.41	3.90	4.39	4.88	5.36	5.85	6.34	6.83	7.32
210	1.90	2.38	2.86	3.33	3.81	4.28	4.76	5.24	5.71	6.19	6.67	7.14
215	1.86	2.33	2.79	3.26	3.72	4.18	4.65	5.11	5.58	6.04	6.51	6.97
220	1.82	2.27	2.73	3.18	3.64	4.08	4.55	5.00	5.45	5.90	6.36	6.82
225	1.78	2.22	2.67	3.11	3.56	4.00	4.44	4.88	5.33	5.78	6.22	6.66
230	1.74	2.17	2.61	3.04	3.48	3.91	4.35	4.78	5.22	5.65	6.09	6.52
235	1.70	2.13	2.55	2.98	3.40	3.83	4.26	4.68	5.11	5.57	5.96	6.38
240	1.67	2.08	2.50	2.92	3.33	3.75	4.17	4.58	5.00	5.41	5.83	6.25
245	1.63	2.04	2.45	2.86	3.27	3.68	4.08	4.49	4.90	5.30	5.71	6.12
250	1.60	2.00	2.40	2.80	3.20	3.60	4.00	4.40	4.80	5.20	5.60	6.00
255	1.57	1.96	2.35	2.75	3.14	3.53	3.92	4.31	4.71	5.10	5.49	5.88
260	1.54	1.92	2.31	2.69	3.08	3.46	3.85	4.22	4.62	5.00	5.38	5.77
265	1.51	1.89	2.26	2.64	3.02	3.39	3.77	4.15	4.53	4.90	5.28	5.66
270	1.48	1.85	2.22	2.59	2.96	3.33	3.70	4.07	4.44	4.81	5.19	5.55
275	1.45	1.82	2.18	2.55	2.91	3.27	3.64	4.00	4.36	4.72	5.09	5.45
280	1.43	1.79	2.14	2.50	2.86	3.21	3.57	3.93	4.29	4.64	5.00	5.36

WAGE TABLE

MONTHLY WAGES COMPUTED ON A DAY BASIS FOR FRACTIONS OF MONTHS WITH 31 DAYS

For higher wages than \$25 or greater number of days combinations of these columns may be made. For instance if the monthly wages are \$35 add the figures given for \$10 and \$25.

Days.	\$10	\$11	\$12	\$13	\$14	\$15	\$16	\$17	\$18	\$19	\$20	\$25
1.....	\$0.32	\$0.35	\$0.39	\$0.42	\$0.45	\$0.48	\$0.52	\$0.55	\$0.58	\$0.61	\$0.65	\$0.81
2.....	.65	.71	.77	.84	.90	.97	1.03	1.10	1.16	1.23	1.29	1.61
3.....	.97	1.06	1.16	1.26	1.35	1.45	1.55	1.65	1.74	1.84	1.94	2.42
4.....	1.29	1.42	1.55	1.68	1.81	1.94	2.06	2.19	2.32	2.45	2.58	3.23
5.....	1.61	1.77	1.94	2.10	2.26	2.42	2.58	2.74	2.90	3.06	3.23	4.03
6.....	1.94	2.13	2.32	2.52	2.71	2.90	3.10	3.29	3.48	3.68	3.87	4.84
7.....	2.26	2.48	2.71	2.94	3.16	3.39	3.61	3.84	4.06	4.29	4.52	5.65
8.....	2.58	2.84	3.10	3.35	3.61	3.87	4.13	4.39	4.65	4.90	5.16	6.45
9.....	2.90	3.19	3.48	3.77	4.06	4.35	4.65	4.94	5.23	5.52	5.81	7.26
10.....	3.23	3.55	3.87	4.19	4.52	4.84	5.16	5.48	5.81	6.13	6.45	8.06

For Months With 30 Days

Days.	\$10	\$11	\$12	\$13	\$14	\$15	\$16	\$17	\$18	\$19	\$20	\$25
1.....	\$0.33	\$0.37	\$0.40	\$0.43	\$0.47	\$0.50	\$0.53	\$0.57	\$0.60	\$0.63	\$0.67	\$0.83
2.....	.67	.73	.80	.87	.93	1.00	1.07	1.13	1.20	1.27	1.33	1.67
3.....	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.50
4.....	1.33	1.47	1.60	1.73	1.87	2.00	2.13	2.27	2.40	2.53	2.67	3.33
5.....	1.67	1.83	2.00	2.17	2.33	2.50	2.67	2.83	3.00	3.17	3.33	4.17
6.....	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	5.00
7.....	2.33	2.57	2.80	3.03	3.27	3.50	3.73	3.97	4.20	4.43	4.67	5.83
8.....	2.67	2.93	3.20	3.47	3.73	4.00	4.27	4.53	4.80	5.07	5.33	6.67
9.....	3.00	3.30	3.60	3.90	4.20	4.50	4.80	5.10	5.40	5.70	6.00	7.50
10.....	3.33	3.67	4.00	4.33	4.67	5.00	5.33	5.67	6.00	6.33	6.67	8.33

DAILY WAGES COMPUTED ON AN HOUR BASIS

	Rate per day.	0.50	0.60	0.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00
10 HOUR DAY	1/2 hour.....	.03	.03	.04	.05	.06	.08	.09	.10	.11	.13	.14	.15	.16	.18	.19	.20	.21	.23	.24	.25
	1 ".....	.05	.06	.08	.10	.13	.15	.18	.20	.23	.25	.28	.30	.33	.35	.38	.40	.43	.45	.48	.50
	2 ".....	.10	.12	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	1.00
	3 ".....	.15	.18	.23	.30	.38	.45	.53	.60	.68	.75	.83	.90	.98	1.05	1.13	1.20	1.28	1.35	1.43	1.50
	4 ".....	.20	.24	.30	.40	.50	.60	.70	.80	.90	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00
	5 ".....	.25	.30	.38	.50	.63	.75	.88	1.00	1.13	1.25	1.38	1.50	1.63	1.75	1.83	2.00	2.12	2.25	2.38	2.50
	6 ".....	.30	.36	.45	.60	.75	.90	1.05	1.20	1.35	1.50	1.65	1.80	1.95	2.10	2.25	2.40	2.55	2.70	2.85	3.00
	7 ".....	.35	.42	.53	.70	.88	1.05	1.23	1.40	1.58	1.75	1.92	2.10	2.28	2.45	2.62	2.80	2.98	3.15	3.33	3.50
	8 ".....	.40	.48	.60	.80	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00
	9 ".....	.45	.54	.68	.90	1.13	1.35	1.58	1.80	2.02	2.25	2.48	2.70	2.93	3.15	3.38	3.60	3.83	4.05	4.28	4.50
9 HOUR DAY	1/2 hour.....	.03	.03	.04	.06	.07	.08	.10	.11	.13	.14	.15	.17	.18	.19	.21	.22	.24	.25	.26	.28
	1 ".....	.06	.07	.08	.11	.14	.17	.20	.22	.25	.28	.31	.33	.36	.39	.42	.45	.47	.50	.53	.56
	2 ".....	.11	.13	.17	.22	.28	.33	.39	.44	.50	.56	.61	.67	.72	.78	.83	.89	.94	1.01	1.06	1.11
	3 ".....	.17	.20	.25	.33	.42	.50	.58	.67	.75	.83	.92	1.00	1.08	1.17	1.25	1.33	1.42	1.50	1.58	1.67
	4 ".....	.22	.27	.33	.44	.56	.67	.78	.89	1.00	1.11	1.22	1.33	1.44	1.55	1.67	1.78	1.89	2.00	2.11	2.22
	5 ".....	.28	.33	.42	.56	.69	.83	.97	1.11	1.25	1.39	1.53	1.67	1.81	1.94	2.08	2.22	2.36	2.50	2.64	2.78
	6 ".....	.33	.40	.50	.67	.83	1.00	1.17	1.33	1.50	1.67	1.83	2.00	2.17	2.32	2.50	2.67	2.83	3.00	3.17	3.33
	7 ".....	.39	.47	.58	.78	.97	1.17	1.36	1.56	1.75	1.94	2.12	2.32	2.52	2.72	2.92	3.11	3.31	3.50	3.69	3.89
	8 ".....	.44	.53	.67	.89	1.11	1.33	1.56	1.78	2.00	2.22	2.44	2.67	2.89	3.11	3.33	3.56	3.78	4.00	4.22	4.44
	9 ".....	.50	.60	.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00
8 HOUR DAY	1/2 hour.....	.03	.04	.05	.06	.08	.10	.11	.13	.14	.16	.17	.19	.20	.22	.23	.25	.26	.28	.29	.31
	1 ".....	.06	.08	.09	.13	.16	.19	.22	.25	.28	.31	.34	.38	.41	.44	.47	.50	.53	.56	.59	.62
	2 ".....	.13	.15	.19	.25	.31	.38	.44	.50	.56	.63	.69	.75	.81	.88	.94	1.00	1.07	1.13	1.19	1.25
	3 ".....	.19	.23	.28	.38	.47	.56	.66	.75	.84	.94	1.03	1.13	1.22	1.31	1.40	1.50	1.59	1.69	1.79	1.88
	4 ".....	.25	.30	.38	.50	.63	.75	.88	1.00	1.13	1.25	1.38	1.50	1.63	1.75	1.88	2.00	2.12	2.25	2.38	2.50
	5 ".....	.31	.38	.47	.63	.78	.94	1.09	1.25	1.41	1.56	1.72	1.88	2.02	2.19	2.34	2.50	2.65	2.81	2.97	3.13
	6 ".....	.38	.45	.56	.75	.94	1.13	1.31	1.50	1.69	1.88	2.06	2.25	2.42	2.63	2.82	3.03	3.19	3.38	3.54	3.73
	7 ".....	.44	.53	.66	.88	1.09	1.31	1.53	1.75	1.97	2.19	2.42	2.63	2.84	3.06	3.28	3.50	3.72	3.94	4.16	4.37
	8 ".....	.50	.60	.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00

WAGE TABLE—Continued
WEEKLY 6 DAY WAGES COMPUTED ON A DAY BASIS

Rate per Week Days.	\$4.50	\$5.00	\$6.00	\$7.00	\$7.50	\$8.00	\$9.00	\$10.50	\$12.00	\$13.00	\$15.00	\$16.50	\$18.00	\$20.00	\$24.00	\$27.00	\$30.00
1 day ..	\$.75	\$.83	\$1.00	\$1.17	\$1.25	\$1.33	\$1.50	\$1.75	\$ 2.00	\$ 2.17	\$ 2.50	\$ 2.75	\$ 3.00	\$ 3.33	\$ 4.00	\$ 4.50	\$ 5.00
2 days..	1.50	1.67	2.00	2.33	2.50	2.67	3.00	3.50	4.00	4.33	5.00	5.50	6.00	6.67	8.00	9.00	10.00
3 " ..	2.25	2.50	3.00	3.50	3.75	4.00	4.50	5.25	6.00	6.50	7.50	8.25	9.00	10.00	12.00	13.50	15.00
4 " ..	3.00	3.33	4.00	4.07	5.00	5.33	6.00	7.00	8.00	8.70	10.00	11.00	12.00	13.33	16.00	18.00	20.00
5 " ..	3.75	4.17	5.00	5.88	6.25	6.67	7.50	8.75	10.00	10.88	12.50	13.75	15.00	16.67	20.00	22.50	25.00

THE WORLD'S WORKERS

Country	Males.	Percentage of Total Occupied.	Females.	Percentage of Total Occupied.	Total Occupied.
United Kingdom*	12,134,259	78.85	3,254,242	21.15	15,388,501
United States*	30,091,564	63.6	8,075,772	18.1	38,756,223
France.....	12,908,879	65.48	6,804,403	34.52	19,713,282
Germany.....	18,599,236	66.21	9,492,881	33.79	28,092,117
Belgium.....	2,258,700	70.8	931,334	29.2	3,190,034
Austria.....	7,791,776	57.82	5,684,997	42.18	13,476,773
Hungary.....	6,066,906	70.32	2,506,861	29.68	8,627,767
Italy.....	10,988,462	67.53	5,284,064	32.47	16,272,526

* Number over 10 years of age occupied.

WORKERS IN THE UNITED STATES

In the several States the proportion of the population ten years of age and over engaged in gainful occupations in 1910 ranged from 46.9 per cent. in Iowa to 68 per cent. in Mississippi. The States having the smallest proportions were Iowa, 46.9 per cent.; Kansas, 47 per cent.; Nebraska, 47.7 per cent.; Utah, 47.9 per cent., and Indiana, 48 per cent. The States having the largest proportions were North Carolina, 60 per cent.; Georgia, 61.5 per cent.; Wyoming, 62.6 per cent.; Nevada, 64.3 per cent.; Alabama, 64.7 per cent.; South Carolina, 67.6 per cent., and Mississippi, 68 per cent. Except in three States—Arizona, Montana, and North Dakota—there was an increase from 1900 to 1910 in the proportion of the population ten years of age and over engaged in gainful occupations. The States showing the largest increases were Alabama, Arkansas, Georgia, Mississippi, Nevada, North Carolina, South Carolina, and Texas.

Practically one-third (33.2 per cent.) of all gainful workers in the United States in 1910 were engaged in agriculture, forestry, and animal husbandry, and considerably more than one-fourth (27.9 per cent.) were engaged in manufacturing and mechanical industries. Thus over three-fifths of all gainful workers were occupied in these two general divisions of occupations.

TRADE UNION MEMBERSHIP

Country	Total Membership	Percentage of Membership to Total Population.
German Empire.....	3,791,665	5.8
United Kingdom.....	3,010,346	6.7
United States.....	2,810,420	2.2
France.....	1,029,238	2.5
Italy.....	817,034	2.4
Austria.....	421,905	1.4
Belgium.....	210,902	2.6
Netherlands.....	152,071	2.5
Denmark.....	142,786	4.6
Switzerland.....	114,520	2.3
Hungary.....	97,000	.4
Sweden.....	81,000	2.2

AVERTING STRIKES

That Federal officials are taking more interest in Labor matters is proved from the fact that the present administration is the first to have a separate department devoted to Labor. If it had not been for the timely action of the President of the United States in calling a conference of those interested, the year 1913 might have witnessed one of the worst strikes in history—that of the trainmen of the Eastern railroads. This strike was

averted by the hurried passage of the Newlands bill amending the Erdman Act and providing arbitration of wage disputes in a manner satisfactory to both railroad Presidents and the labor leaders. The points settled were:

First—Whenever a controversy arises between the railroads and their employes that cannot be settled by mediation and conciliation, the dispute is to be submitted to an arbitration board of six members, the employers and the employes, parties to the agreement to arbitrate, each naming two arbitrators, and the four arbitrators thus chosen being allowed by a majority vote to choose the remaining two arbitrators. If, within fifteen days, the four arbitrators fail to name the other two, the latter must be named by the Board of Mediation and Conciliation.

Second—The proposed Board of Mediation and Conciliation, instead of being under the Department of Labor, is to be independent of every Government department. The board will consist of a Commissioner of Mediation and Conciliation to be appointed by the President for a term of seven years and two other officials of the Government to be designated by the President.

According to the law new, this board could be appealed to, to intervene in a labor dispute by either party, and would first use its best efforts, by mediation and conciliation, to bring the disputants to an agreement. Failure would be followed by an attempt on the part of the Board to "induce the parties to submit their controversy to arbitration"; and, in case arbitration was agreed to, special boards of either three or six mediators would be chosen by the employers and the employes.

Arbitration, under the new law, would be undertaken only after a definite agreement had been made by both parties, to abide by the decision of the arbitration board for a stated period. Three important clauses of the provisions of agreement which the arbitrating parties must sign are as follows:

(10).—Shall provide that the respective parties to the award will each faithfully execute the same.

(11).—Shall provide that the award and the papers and proceedings, including the testimony relating thereto, certified under the hands of the arbitrators and which shall have the force and effect of a bill of exceptions, shall be filed in the clerk's office of the District Court of the United States for the district wherein the controversy arises or the arbitration is entered into, and shall be final and conclusive upon the parties to the agreement unless set aside for error of law apparent on the records.

(12).—May also provide that any difference arising as to the meaning or the application of the provisions of an award made by a board of arbitration shall be referred back to the same board or to a sub-committee of such board for a ruling, which ruling shall have the same force and effect as the original award; and if any member of the original board is unable or unwilling to serve, another arbitrator shall be named in the same manner as such original member was named.

*MARINE DISASTERS OF HALF A CENTURY

Year	Date	Steamer	Cause	Lives Lost
1866	Oct. 3	Evening Star.....	New York to New Orleans—foundered.....	250
1867	Oct. 29	About 50 vessels.....	Wrecked in West Indies by hurricane.....	1000
1870	.....	City of Boston.....	Left New York—Never heard from.....	117
1873	April 2	Atlantic—White Star.....	Wrecked off Nova Scotia.....	547
1874	Dec. 26	Cospatrick.....	Caught fire and sank off Auckland.....	476
1875	May 7	Schiller—Hamburg.....	Wrecked in fog off Scilly Islands.....	200
1875	Nov. 4	Pacific.....	Collision off Cape Flattery.....	236
1877	Nov. 24	U. S. Huron.....	Wrecked off Coast North Carolina.....	110
1878	Mar. 24	Eurydice—British.....	Foundered near Isle of Wight.....	300
1878	Sept. 3	Princess Alice.....	Collision on Thames.....	700
1878	Dec. 18	Byzantin—French.....	Collision in Dardanelles.....	210
1880	Jan. 31	Atlanta—British.....	Left Bermuda—Never heard from.....	290
1881	Aug. 30	Teuton.....	Wrecked off Cape Good Hope.....	200
1883	July 3	Daphne.....	Turned turtle in Clyde.....	124
1884	Jan. 18	City of Columbus.....	Wrecked off Gay Head Light, Mass.....	99
1884	April 19	Ponema—State of Florida.....	Collision in mid-ocean.....	145
1884	July 23	Gijon—Spanish and Lux—British.....	Collision off Finistère.....	150
1886	Mar. 14	Oregon—Cunard.....	Collision near Long Island—Sunk.....	None
1887	Jan. 29	Kapunda.....	Collision off Coast of Brazil.....	300
1887	Nov. 15	Wah Young—British.....	Caught fire in Chinese Waters.....	400
1888	Sept. 13	Sud America—Italian and La France.....	Collision near Canary Islands.....	89
1890	Feb. 17	Duberg—British.....	Wrecked in China Sea.....	400
1890	Sept. 19	Ertogrul—Turkish.....	Foundered off coast of Japan.....	540
1891	Mar. 17	Utopia—Anchor and Anson—British.....	Collision off Gibraltar.....	574
1892	Jan. 13	Namehow.....	Wrecked in China Sea.....	414
1892	Oct. 28	Romania—Anchor.....	Wrecked off Corsica.....	113
1893	Feb. 8	Trinallia—Anchor.....	Wrecked off Spain.....	115
1893	June 22	Victoria—British.....	Collision with Camperdown off Syria.....	357
1894	June 25	Norge.....	Wrecked on Rockall Reef, N. Atlantic.....	550
1895	Jan. 30	Elbe—German.....	Collision with Cathrie, North Sea.....	330
1897	Mar. 7	Ville de St. Nazaire.....	Burned off Cape Hatteras.....	40
1898	July 4	La Bourgogne.....	Rammed off Sable Island.....	560
1904	July 3	Norge.....	Sunk at sea.....	750
1904	June 15	General Slocum.....	Burned in East River.....	958
1905	Sept. 12	Mikasa—Japanese.....	Sunk after explosion in Sasebo harbor.....	599
1907	Feb. 12	Larchmont and Harry Hamilton.....	Collision in Long Island Sound.....	183
1907	Feb. 21	Berlin—British.....	Wrecked off Coast of Holland.....	142
1907	Feb. 24	Imperatrix—Austrian.....	Wrecked on Cape of Crete, sunk.....	137
1907	Mar. 7	Jena—French Warship.....	Blown up at Toulon.....	120
1907	July 1	Columbia.....	Sunk off Coast of California.....	50
1908	April 25	Gladiator—British.....	Rammed by St. Paul off Isle of Wight.....	30
1909	Jan. 24	Republic.....	Rammed by Florida off Nantucket.....	8
1911	Aug. 9	Emil.....	Wrecked off Straits of Gibraltar.....	93
1911	Nov. 23	Roumania.....	Wrecked in Adriatic Sea.....	60
1912	Mar. 16	Oceana.....	Lost off Beachy Head, England.....	14
1912	April 15	Titanic.....	Collision with iceberg off Cape Race.....	1507
1913	Oct. 10	Voltorno.....	Fire in Mid-Atlantic.....	136
1914	Jan. 30	Monroe—Old Dominion Line.....	Collision with Nantucket off Virginia Coast.....	49
1914	May 29	Empress of Ireland.....	Collision with Stord in St. Lawrence.....	1,024
1915	July 24	Eastland.....	Foundered in Chicago.....	1500

*For marine disasters of the European War see Chronological History of European War.

TRANSATLANTIC STEAMSHIP RECORDS

Best records between New York and European ports east or west.

Date	Steamer	D.	H.	M.
1856	Persia.....	9	1	45
1866	Scotia.....	8	2	48
1869	City of Brussels.....	7	22	3
1873	Baltic.....	7	20	9
1875	City of Berlin.....	7	15	48
1876	Germanic.....	7	1	37
1877	Britannic.....	7	10	53
1880	Arizona.....	7	7	23
1882	Alaska.....	6	18	37
1884	Oregon.....	6	11	9
1884	America.....	6	10	0
1887	Umbria.....	6	4	42
1888	Etruria.....	6	1	55
1891	Majestic.....	5	18	8
1891	Teutonic.....	5	16	31
1892	City of Paris.....	5	14	24
1893	Campania.....	5	12	7
1894	Lucania.....	5	7	23
1908	Lusitania.....	4	15	0
1909	Mauretania.....	4	13	41
1910	Mauretania.....	4	10	41

In 1492, Christopher Columbus, on the *Santa Maria*, made the first voyage across the Atlantic in 71 days.

UNDER WATER 6 1-2 MINUTES RECORD

When a man named Enocs remained under water for four minutes and forty-six seconds in March, 1896, the swimming world was astonished. A Frenchman named Poulyuen tried to break this record in 1907. He remained under water for four minutes and thirty-one seconds and then came up more dead than alive. On Nov. 2, 1912, Poulyuen succeeded in breaking the record by remaining under for six minutes and thirty seconds.

THE OLDEST ORDER

What is the oldest order in existence? The claim is made for that of the Holy Sepulchre, the grand officership of which has just been conferred by the Pope on a member of the Irish Nationalist party, Sir Thomas Grattan Esmond. It appears that no date or the name of a founder can be assigned to the Order of the Holy Sepulchre, though there is a legendary tradition that traces its origin to the time of Charlemagne. In the middle of the last century, however, when the Latin Patriarchate of Jerusalem was re-established, the office of grand master of the order was transferred to it by Pope Pius the Ninth, who many years later, in 1863, created by statute three ranks of the order—the Grand Cross, Commander, and Knight. The costume is a white cloak, with the Cross of Jerusalem in red enamel. The Pope himself is grand master of the order.

STATE FACTS

HIGHEST MEASURED ALTITUDE IN EACH STATE

State and Point	Feet	State and Point	Feet
Alabama, Cheawha mountain.....	2,407	Montana, Granite peak.....	12,834
Alaska, Mount McKinley.....	20,300	Nebraska, plains in southwestern corner.....	5,300
Arizona, San Francisco peak.....	12,611	Nevada, Wheeler peak.....	13,058
Arkansas, Magazine mountain.....	2,800	New Hampshire, Mount Washington.....	6,293
California, Mount Whitney.....	14,501	New Jersey, High Point.....	1,800
Colorado, Mount Elbert.....	14,421	New Mexico, peak near Truchas peak.....	13,306
Connecticut, Bear mountain.....	2,355	New York, Mount Marcy.....	5,344
Delaware, near Brandywine.....	440	North Carolina, Mount Mitchell.....	6,711
District of Columbia, Fort Reno.....	421	North Dakota, south part of Bowman county.....	3,500
Florida, near Mount Pleasant station.....	301	Ohio, 1½ miles east of Bellefontaine.....	1,540
Georgia, Brasstown Bald mountain.....	4,768	Oklahoma, south of Kenton.....	4,700
Idaho, Hyndman peak.....	12,078	Oregon, Mount Hood.....	11,225
Illinois, Charles mound, Jo Daviess county.....	1,241	Pennsylvania, Blue Knob.....	3,136
Indiana, Carlos City.....	1,285	Rhode Island, Durfee hill.....	805
Iowa, five miles southeast of Sibley.....	1,670	South Carolina, Sassafras mountain.....	3,548
Kansas, west boundary no. of Arkansas river.....	4,135	South Dakota, Harney peak.....	7,244
Kentucky, The Double, Harlem county.....	4,100	Tennessee, Mount Guyot.....	6,636
Louisiana, summits in western parishes.....	400	Texas, El Capitan, Guadalupe mountain.....	8,690
Maine, Mount Katahdin (west).....	5,268	Utah, Kings Peak.....	13,498
Maryland, Backbone mountain.....	3,400	Vermont, Mount Mansfield.....	4,364
Massachusetts, Mount Greylock.....	3,535	Virginia, Mount Rogers.....	5,719
Michigan, Porcupine mountain.....	2,023	Washington, Mount Rainier.....	14,470
Minnesota, Misquah hills, Cook county.....	2,400	West Virginia, Spruce Knob.....	4,860
Mississippi, near Holly Springs.....	602	Wisconsin, Rib hill, Marathon county.....	1,940
Missouri, Tom Sauk mountain.....	1,800	Wyoming, Mount Gannett.....	13,785

STATE NICKNAMES AND FLOWERS

State	Nickname	Flower	State	Nickname	Flower
Alabama.....	Cotton state.....	Goldenrod	Missouri.....		Goldenrod
Arizona.....		Sequoia cactus	Nebraska.....		Goldenrod
Arkansas.....	Bear state.....	Apple blossom	Nevada.....	Silver state.....	
California.....	Golden state.....	Poppy	New Hampshire.....	Granite state.....	
Colorado.....	Centennial state.....	Columbine	New Jersey.....	Jersey Blue state.....	Sugar maple (tree)
Connecticut.....	Nutmeg State.....		New York.....	Empire state.....	Rose
Delaware.....	Blue Hen state.....	Peach blossom	North Carolina.....	Old North state.....	
Florida.....	Peninsula state.....		North Dakota.....	Flickertail state.....	Goldenrod
Georgia.....	Cracker state.....	Cherokee rose	Ohio.....	Buckeye state.....	
Idaho.....		Syringa	Oklahoma.....		Mistletoe
Illinois.....	Sucker state.....	Violet	Oregon.....	Beaver state.....	Oregon grape
Indiana.....	Hoosier state.....		Pennsylvania.....	Keystone state.....	
Iowa.....	Hawkeye state.....	Wild rose	Rhode Island.....	Little Rhody.....	Violet
Kansas.....	Sunflower state.....	Sunflower.	South Carolina.....	Palmetto state.....	
Kentucky.....	Blue Grass state.....		South Dakota.....	Swiage Cat state.....	
Louisiana.....	Pelican state.....	Magnolia	Tennessee.....	Big Bend state.....	
Maine.....	Pine Tree state.....	Pine cone	Texas.....	Lone Star state.....	Bluebonnet
Maryland.....	Old Line state.....		Utah.....		Sego lily
Massachusetts.....	Bay state.....		Vermont.....	Green Mountain state.....	Red clover
Michigan.....	Wolverine state.....	Apple blossom	Virginia.....	The Old Dominion.....	
Minnesota.....	Gopher state.....	Moccasin	Washington.....	Chinook state.....	Rhododendron
Mississippi.....	Bayou state.....	Magnolia	West Virginia.....	The Panhandle.....	
Montana.....	Stub Toe state.....	Bitter root	Wisconsin.....	Badger state.....	

FORMS OF CAPITAL PUNISHMENT IN UNITED STATES

Alabama.....	Hanging	Mississippi.....	Hanging	Texas.....	Hanging	Washington.....	
Arizona.....	Hanging	Missouri.....	Hanging	Utah.....	Option—Shooting or hanging	.....	(Life Imprisonment)
Arkansas.....	Electrocution	Montana.....	Hanging	Vermont.....	Electrocution	West Virginia.....	Hanging
California.....	Hanging	Nebraska.....	Electrocution	Virginia.....	Electrocution	Wisconsin (Life Imprisonment)	
Colorado.....	Hanging	Nevada.....	Option—Shooting or hanging			Wyoming.....	Hanging
Connecticut.....	Hanging	New Hampshire.....	Hanging				
Delaware.....	Hanging	New Jersey.....	Electrocution				
Dist. of Columbia.....	Hanging	New Mexico.....	Hanging				
Florida.....	Hanging	New York.....	Electrocution				
Georgia.....	Hanging	N. Carolina.....	Electrocution				
Idaho.....	Hanging	N. Dakota (Life Imprisonment)					
Illinois.....	Hanging	Ohio.....	Electrocution				
Indiana.....	Electrocution	Oklahoma.....	Electrocution				
Iowa.....	Hanging	Oregon.....	(Life Imprisonment)				
Kansas.....	(Life Imprisonment)	Pennsylvania.....	Electrocution				
Kentucky.....	Electrocution	Rhode Island.....					
Louisiana.....	Hanging	.....	(Life Imprisonment)				
Maine.....	(Life Imprisonment)	S. Carolina.....	Electrocution				
Maryland.....	Hanging	S. Dakota.....	(Life Imprisonment)				
Massachusetts.....	Electrocution	Tennessee.....	Electrocution				
Michigan (Life Imprisonment)							
Minnesota (Life Imprisonment)							

THE CONSCIENCE FUND

There is in reality no such distinct account as the "Conscience Fund" in the United States Treasury. Conscience money is immediately turned into the general fund and expended the same as any other receipt. Conscience money sent to the Federal Treasury during 1916 amounted to \$34,925.36. Only four people contributed. Their identity is unknown. The amount makes an aggregate of \$489,981.66, thus paid into the Treasury.

Conscience contributions range from a few cents to thousands of dollars. The fund was established in President Madison's administration in 1811, when the first contribution of \$5 was received. The largest amount ever received in one year was \$35,868 in 1902, and the greatest individual contribution \$30,000, was made by an unknown, who sent the money in bills, to the Treasury Department on Mar. 10, 1916. This was the fourth contribution received from this unknown making a total of \$80,000.

DATA OF STATES

STATE	Admitted to the Union	Area. Sq. M.	Rep. Cong.	Elec. vote. †	STATE	Admitted to the Union	Area. Sq. M.	Rep. Cong.	Elec. vote. †
Alabama.....	Dec. 14, 1819...	52,250	10	12	Nebraska.....	March 1, 1867...	77,510	6	8
Arizona.....	Feb. 14, 1912...	113,020	1	3	Nevada.....	Oct. 31, 1864...	110,700	1	3
Arkansas.....	June 15, 1836...	53,850	7	9	New Hampshire...	*June 21, 1788...	9,305	2	4
California.....	Sept. 9, 1850...	158,360	11	13	New Jersey.....	*Dec. 18, 1787...	7,815	12	14
Colorado.....	Aug. 1, 1876...	103,925	4	6	New Mexico.....	Jan. 6, 1912...	122,580	1	3
Connecticut.....	*Jan. 9, 1788...	4,990	5	7	New York.....	*July 26, 1788...	49,170	43	45
Delaware.....	*Dec. 7, 1787...	2,050	1	3	North Carolina...	*May 23, 1785...	52,250	10	12
Florida.....	March 3, 1845...	58,080	4	6	North Dakota...	Nov. 2, 1889...	70,795	3	5
Georgia.....	*Jan. 2, 1788...	59,475	12	14	Ohio.....	Nov. 29, 1802...	41,060	22	24
Idaho.....	July 3, 1890...	84,800	2	4	Oklahoma.....	Nov. 16, 1907...	70,430	8	10
Illinois.....	Dec. 3, 1818...	56,650	27	29	Oregon.....	Feb. 14, 1859...	96,030	3	5
Indiana.....	Dec. 11, 1816...	36,350	13	15	Pennsylvania...	*Dec. 12, 1787...	45,215	36	38
Iowa.....	March 3, 1845...	56,025	11	13	Rhode Island...	*May 29, 1790...	1,250	3	5
Kansas.....	Jan. 29, 1861...	82,080	8	10	South Carolina...	*May 23, 1788...	30,570	7	9
Kentucky.....	Feb. 4, 1792...	40,400	11	13	South Dakota...	Nov. 2, 1889...	77,650	3	5
Louisiana.....	April 8, 1812...	48,720	8	10	Tennessee.....	June 1, 1796...	42,050	10	12
Maine.....	March 3, 1820...	33,040	4	6	Texas.....	Dec. 29, 1845...	265,780	18	20
Maryland.....	*April 28, 1788...	12,210	6	8	Utah.....	Jan. 4, 1896...	84,970	2	4
Massachusetts...	*Feb. 6, 1788...	8,315	16	18	Vermont.....	Feb. 18, 1791...	9,565	2	4
Michigan.....	Jan. 26, 1837...	58,915	13	15	Virginia.....	*June 26, 1788...	42,450	10	12
Minnesota.....	May 11, 1858...	83,365	10	12	Washington.....	Nov. 11, 1889...	69,180	5	7
Mississippi.....	Dec. 10, 1817...	46,810	8	10	West Virginia...	Dec. 31, 1862...	24,780	6	8
Missouri.....	March 2, 1821...	69,415	16	18	Wisconsin.....	May 29, 1848...	56,040	11	13
Montana.....	Nov. 8, 1889...	146,080	2	4	Wyoming.....	July 11, 1890...	97,890	1	3

*Ratified the Constitution according to Reapportionment act approved Aug. 8, 1911.

RECORDS OF POLAR EXPEDITIONS

Year	Explorer	Deg.	Min.
1871	Captain Hall.....	82	16
1876	Captain Nares.....	83	10
1879	Lieutenant De Long.....	77	15
1882	Lieutenant Greely.....	83	24
1890	Lieutenant Peary.....	83	50
1891	Lieutenant Peary.....	83	24
1895	Fridtjof Nansen.....	86	14
1900	Duke d'Abruzzi.....	86	33
1902	Lieutenant Peary.....	84	17
1904	Anthony Fiala.....	82	13
1906	Commander Peary.....	87	6
1909	Commander Peary (April 6)	90	The Pole

ANTARCTIC

1774	Captain Cook.....	71	15
1823	Captain Weddell.....	74	15
1842	Captain Ross.....	77	49
1895	Borchgrevink.....	74	10
1898	De Gerlache.....	71	36
1900	Borchgrevink.....	78	50
1902	Captain Scott.....	82	17
1909	Lieutenant Shackleton.....	88	23
1911	Capt. Raold Amundsen (Dec. 14).....	90	The Pole*

*Although Amundsen discovered the pole Dec. 14, 1911 it was not known to the civilized world for many days. In the final stage of the journey to the pole the party numbered five men, namely Capt. Amundsen and Hassel, Wisting, Bjaaland and Hansen. They had fifty-two dogs, four sledges and provisions for four months. Eleven of the dogs survived the journey.

BIRTH STONES AND THEIR MEANING

JANUARY—Garnet. Constancy and fidelity.
 FEBRUARY—Amethyst. Sincerity.
 MARCH—Bloodstone. Courage. Presence of mind.
 APRIL—Diamond. Innocence.
 MAY—Emerald. Success in love.
 JUNE—Agate or Pearl. Health and long life.
 JULY—Ruby or Carnelian. Contented mind.
 AUGUST—Sardonyx. Conjugal felicity.
 SEPTEMBER—Sapphire. Antidote against madness.
 OCTOBER—Opal. Hope.
 NOVEMBER—Topaz. Fidelity.
 DECEMBER—Turquoise. Prosperity.

The jewellers of New York have united in a movement to establish a new standard list of Natal Stones. For December, January and February, the colder tones of the diamonds, aquamarine and sapphire are suggested. March, April and May are represented by the different shades of green, peridot, olive and emerald; the summer months, June, July and August, by the tourmaline, ruby and garnet, and autumn by vintage colors in the topaz, zircon and amethyst.

WEDDING ANNIVERSARIES

First year, cotton wedding; second, paper; third, leather; fourth, book; fifth, wooden; sixth, garnet; seventh, woolen; eighth, bric-a-brac; ninth, topaz; tenth, tin; twelfth, silk and fine linen; fifteenth, crystal; twentieth, china; twenty-fifth, silver; thirtieth, pearl; thirty-fifth, sapphire; fortieth, ruby; fiftieth, golden; seventy-fifth, diamond.

LORE OF THE WEDDING RING

In the Isle of Man the wedding-ring was formerly used as an instrument of torture. Cyril Davenport, in his book on "Jewelry," remarks that there once existed a custom in that island, according to which an unmarried girl who had been offended by a man could bring him to trial, and if he were found guilty she would be presented with a sword, a rope, and a ring.

With the sword she might cut off his head, with the rope she might hang him, or with the ring she might marry him. It is said that the last named punishment was invariably inflicted.

The wedding-ring was anathema to the early Puritans, who regarded personal adornment as one of the many snares of Satan. In the old English marriage service it was the custom for the bridegroom to put the ring on the thumb of the bride, saying "In the name of the Father," then on the next finger, saying "and the Son," and then on the third finger, saying "and of the Holy Ghost," finally on the fourth finger, with the word "Amen."

The ring was left there because, as the Sarum rubric says, "a vein proceeds thence to the heart." In the modern marriage service the ring is placed at once upon the third finger, the invocation to the Trinity being understood.

AVERAGE TEMPERATURE AND PRECIPITATION AT U. S. WEATHER STATIONS

Station	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual	* Lowest record	* Highest record	Annual precipitation
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	Ins.
Abilene, Tex.	43	45	55	64	72	78	82	81	74	64	53	45	63	-6	110	24.7
Albany, N. Y.	22	24	32	46	59	68	72	70	62	50	38	28	48	-24	104	36.4
Amarillo, Tex.	34	37	45	55	64	72	76	75	68	56	44	36	55	-16	105	22.6
Atlanta, Ga.	42	45	52	61	70	76	78	76	72	62	52	45	61	-8	100	49.4
Bismarck, N. Dak.	7	8	22	43	55	64	70	68	57	44	26	15	40	-44	107	17.6
Boise, Idaho.	29	34	42	50	58	66	73	72	62	50	40	32	51	-28	111	12.7
Boston, Mass.	27	28	35	45	57	66	71	69	63	52	41	32	49	-13	104	43.4
Buffalo, N. Y.	25	24	31	42	54	65	70	69	63	52	39	30	47	-14	95	37.3
Charlotte, N. C.	40	44	51	59	68	76	79	77	71	61	50	43	60	-5	102	49.2
Chicago, Ill.	24	25	34	46	56	66	72	71	65	53	39	29	48	-23	103	33.3
Cleveland, Ohio.	26	27	34	46	58	68	72	70	64	53	40	31	49	-17	99	35.0
Denver, Colo.	29	31	39	48	57	66	72	70	63	51	39	32	50	-29	105	14.0
Des Moines, Iowa.	20	24	36	51	62	70	76	73	65	52	37	26	49	-30	109	32.4
Dodge, Kas.	27	31	42	54	64	73	78	76	68	55	40	32	53	-26	108	20.8
Dubuque, Iowa.	18	22	33	49	61	70	75	72	64	52	36	24	48	-32	106	34.0
Duluth, Minn.	10	14	24	38	49	58	66	65	57	45	29	18	39	-41	99	29.9
Eastport, Me.	20	21	29	38	47	54	60	60	55	47	37	25	41	-23	93	43.3
El Paso, Tex.	44	49	56	64	72	80	80	79	73	62	51	45	63	-5	113	9.8
Fresno, Cal.	45	49	55	61	68	76	82	81	74	65	55	47	63	-17	115	9.7
Galveston, Tex.	53	56	62	69	75	81	83	83	79	72	63	56	69	-8	99	47.1
Green Bay, Wis.	15	17	27	41	54	65	70	67	59	47	32	21	43	-36	100	31.1
Harrisburg, Pa.	29	30	38	51	62	70	74	72	65	54	42	33	52	-14	101	37.4
Havre, Mont.	14	15	27	43	54	62	68	67	58	44	31	21	42	-48	108	13.7
Helena, Mont.	20	22	31	42	52	61	67	66	56	44	33	25	43	-42	103	12.8
Huron, S. Dak.	10	13	27	45	57	67	72	69	60	45	27	16	42	-43	108	21.1
Indianapolis, Ind.	28	31	40	52	63	72	76	74	67	55	42	33	53	-25	106	41.5
Jacksonville, Fla.	54	57	62	68	74	79	81	80	77	70	61	55	68	-10	104	53.2
Jupiter, Fla.	64	66	69	72	76	80	81	82	81	77	72	66	74	-24	96	60.2
Kansas City, Mo.	26	30	41	54	64	73	78	76	68	56	42	32	53	-22	106	37.3
Knoxville, Tenn.	38	41	48	57	66	73	76	75	69	58	47	40	57	-16	100	49.4
Lander, Wyo.	17	22	31	42	52	61	68	66	55	42	29	19	42	-36	99	13.9
Little Rock, Ark.	41	44	53	63	70	77	81	79	73	63	52	44	62	-12	106	49.9
Los Angeles, Cal.	54	55	57	59	62	67	70	72	70	65	60	56	62	-28	109	15.6
Louisville, Ky.	34	37	45	56	67	75	79	76	70	58	46	38	57	-20	107	44.3
Lynchburg, Va.	36	38	45	56	66	74	77	75	68	57	46	38	56	-7	102	43.4
Montgomery, Ala.	48	51	58	65	74	79	81	80	76	66	56	49	65	-5	107	51.2
New Orleans, La.	53	56	62	68	74	80	81	81	78	70	61	54	68	-7	102	57.4
New York, N. Y.	30	31	38	48	59	68	74	72	66	56	44	34	52	-6	100	44.6
Northfield, Vt.	15	17	26	40	54	63	67	63	55	44	32	20	41	-35	98	33.8
North Platte, Neb.	21	25	35	49	59	68	74	72	63	50	35	27	48	-35	107	18.9
Oklahoma, Okla.	35	38	49	60	68	76	80	78	72	61	48	39	59	-17	108	31.7
Omaha, Neb.	20	24	36	50	62	72	76	74	66	54	38	27	50	-32	107	30.7
Oswego, N. Y.	24	24	31	43	55	64	70	69	63	51	39	29	47	-23	100	36.2
Palestine, Tex.	46	51	58	66	72	78	82	80	75	66	57	49	65	-6	108	43.0
Parkersburg, W. Va.	31	34	42	53	63	72	76	73	66	55	43	35	54	-27	102	40.2
Phoenix, Ariz.	50	54	60	67	75	84	90	89	81	70	59	52	69	-22	102	7.9
Port Huron, Mich.	22	22	30	42	54	64	69	67	61	50	37	27	45	-25	101	30.6
Portland, Ore.	39	41	46	51	57	61	66	66	61	53	46	41	52	-2	102	45.1
Rapid City, S. Dak.	22	24	32	44	54	64	70	69	59	47	34	26	45	-40	106	18.0
Red Bluff, Cal.	45	49	54	59	66	76	82	81	74	64	53	46	62	-18	115	25.0
St. Louis, Mo.	31	34	44	56	66	75	79	77	70	58	43	36	56	-22	107	37.2
St. Paul, Minn.	12	15	28	46	58	67	72	70	60	48	31	19	44	-41	104	28.7
Salt Lake City, Utah.	29	33	41	50	58	68	76	76	65	52	40	32	52	-20	102	16.0
San Antonio, Tex.	51	54	62	69	75	80	82	82	77	69	59	53	68	-4	108	26.8
San Francisco, Cal.	50	51	53	54	56	57	57	58	59	58	56	51	55	-29	101	22.3
Santa Fe, N. Mex.	28	32	39	48	57	66	69	67	61	50	38	30	49	-13	97	14.5
Sault Ste. Marie, Mich.	13	13	21	36	48	58	62	61	54	43	31	20	38	-37	97	31.4
Seattle, Wash.	39	40	44	49	55	60	64	63	58	51	44	41	51	-11	96	36.6
Shreveport, La.	46	50	58	66	73	80	82	81	76	66	55	49	65	-5	110	45.7
Spokane, Wash.	27	30	39	48	56	63	69	68	59	47	37	31	48	-30	104	18.8
Springfield, Ill.	26	29	39	52	64	72	76	74	66	55	41	31	52	-24	107	37.0
Springfield, Mo.	31	34	44	56	65	72	76	75	68	57	44	36	55	-29	106	44.6
Tampa, Fla.	57	61	66	71	76	79	80	80	78	73	65	60	70	-19	96	53.1
Vicksburg, Miss.	47	51	58	65	73	78	80	80	75	65	56	49	65	-1	101	53.7
Walla Walla, Wash.	33	36	44	53	61	68	74	74	65	54	43	36	53	-17	113	17.7
Washington, D. C.	33	34	42	53	64	73	77	74	68	57	45	36	55	-15	104	43.5
Williston, N. Dak.	8	8	22	40	54	64	69	68	60	43	25	14	39	-49	107	15.1
Wilmington, N. C.	46	48	54	60	69	76	79	78	73	63	54	47	62	-5	103	51.0
Winnemucca, Nev.	29	33	40	47	54	63	72	71	60	49	38	31	49	-28	104	8.4

* Temperature extremes include 1914

AVERAGE ANNUAL TEMPERATURE AND RAINFALL OF FOREIGN CITIES

Cities	Temperature Fahr.	Rainfall Inches	Cities	Temperature Fahr.	Rainfall Inches	Cities	Temperature Fahr.	Rainfall Inches
Alexandria.....	69.0	10	Edinburgh.....	47.1	38	Moscow.....	40.0	21.1
Amsterdam.....	49.9	....	Florence.....	59.2	41	Munich.....	48.4	30..
Athens.....	63.0	....	Frankfort.....	50.0	....	Naples.....	60.3	30..
Berlin.....	48.2	30	Geneva.....	52.7	32	Paris.....	51.3	19.6
Bermuda.....	72.0	55	Glasgow.....	49.8	45.4	Peking.....	53.0	27
Bombay.....	81.3	70.3	Hamburg.....	47.0	....	Quebec.....	40.3	....
Brussels.....	50.0	29	Havana.....	79.1	46.5	Rio de Janeiro.....	77.2	29..
Budapest.....	51.9	17	Hongkong.....	73.0	101	Rome.....	60.5	30.6
Buenos Aires.....	62.8	34.1	Honolulu.....	75.0	....	Rotterdam.....	51.0	23
Cairo.....	72.2	1.3	Lisbon.....	61.4	27	St. Petersburg.....	39.6	18.8
Calcutta.....	82.4	76	London.....	50.8	25	Sydney.....	65.8	49
Canton.....	71.0	39	Madrid.....	58.2	9	The Hague.....	52.0	....
Cape Town.....	62.0	25	Manila.....	78.4	55.2	Tokio.....	56.4	60.4
Constantinople.....	56.5	....	Melbourne.....	57.0	29	Venice.....	55.4	....
Copenhagen.....	46.6	19	Montreal.....	44.6	39.3	Vienna.....	51.0	19
Dublin.....	50.1	29						

The wettest continent is So. America, with an average rainfall of 65.7 inches. Africa has an average rainfall of 32.5 inches. North America and Europe each about 28.7 inches, and Asia 21.7 inches. Australia is somewhat less.

COLDEST PLACE ON EARTH

The lowest temperature ever recorded was at Werchojansk, in the interior of Siberia, January 15, 1885. It was ninety degrees and a fraction below zero. In that section, the earth freezes to a depth of a hundred feet and in the warmest season it never thaws.

CAUSE OF TIDES

The theory of earth tides is not a new one, as the varying effect of the sun and the moon on the earth is tremendous. Observations have been taken eighty-two feet below the surface with a horizontal pendulum so delicately constructed that measurements with it could be taken of variations one-hundred-thousandth part of a second. The earth appears to be affected by the sun and moon twice in each twenty-four hours, the moon exerting twice the influence of the sun. The whole shape of the earth is affected, and not merely the crust. It is an actual deformation of the ball, setting up bodily tides, which follow the direction of the ordinary ocean tides in half-day periods. Scientists, who have made this subject a life-long study, have come to the conclusion that the earth has a degree of rigidity equivalent to that of a ball of steel of the same size, but the evidence is against the idea that there is a viscous stratum between the crust and the solid central core. There is now no doubt the earth flows and ebbs much like the sea.

HEIGHT AND LENGTH OF WAVES OF THE SEA

The height of the waves in a storm rarely exceeds 12 feet; in very bad disturbances on the high sea they may reach a height of 50 feet. Their length is never over 600 feet. In the southern parts of the Pacific waves 43 feet in height have been measured. In the southern part of the Atlantic 39 feet, and in the Bay of Biscay and in the Mediterranean 12 feet. At places where the waves strike at an object, such as a lighthouse, they rise, of course, much higher—at Bell Rock, for instance, over 100 feet and at Unst over 200. On the open sea, however, they never rise over 50 feet.

CAUSE OF THUNDER AND LIGHTNING

When a thunderstorm occurs, a stress is thrown on the air, either between two clouds or between a cloud and the earth, and when this stress has reached a pressure of about half a gramme weight to the square inch, the air is literally cracked. The line of the fracture is illuminated by the intense heat caused, rendering the air particles incandescent, and we see this and call it lightning. This is all lightning is; there is no "bolt" and no transference of matter from one place to another. To speak or write of an object as being "struck" by lightning is calculated to produce a wrong impression, because it conveys the idea of a ponderable object giving a blow. It is literally an incorrect term, but we are forced to employ it because it has been so long in use.

ORIGIN OF THE NAMES OF THE DAYS

The week was unknown to the ancients. It was gradually adopted under the later emperors.

The arrangement of the heavenly bodies, according to their distances from the earth, is in the following order: Saturn, Jupiter, Mars, the Sun, Venus, Mercury, the Moon; and it was a principle of the ancient astrology that these planets presided in succession over the hours of the day, and from which the Latin designations given to days of the week have been derived; and from these have been formed the modern names used in different countries, either by literal translation, or, in the Teutonic tongues, by the substitution, in some cases, of the corresponding deity of northern paganism for the classical god.

SUNDAY—Is so called because it was anciently dedicated to the worship of the Sun.

MONDAY—Means literally the Day of the Moon.

TUESDAY—Was dedicated to Tuisco, the Mars of our Saxon ancestors, the deity that presided over combats, strife and litigation. Hence, in England, Tuesday is assize day; the day for combat, or commencing litigation.

WEDNESDAY—Is so called from Wodin, or Odin, a deity or chief among the northern nations of Europe.

THURSDAY—Was named by the Saxons from Thor, the old Teutonic god of thunder.

FRIDAY—Is from Freia or Friga, a goddess of the old Saxon mythology.

SATURDAY—Means simply Saturn's day, the name being derived from the deity of that name.

THE DEEPEST POINT IN THE OCEAN.

The deepest known point in the ocean is near the Island of Guam, in the Pacific. Here the United States Ship *Nero* found bottom at 5,269 fathoms (six miles), or 2,612 feet more than the height of Mount Everest, the world's highest peak. Life has been found to exist at a depth of 4,173 fathoms.

By a simple rule the length of the day and night, any time of the year, may be ascertained by simply doubling the time of the sun's rising, which will give the length of the night; and doubling the time of setting, will give the length of the day.

Greenwich time was officially adopted by France on March 10, 1911. In future Paris and London time will be exactly the same.

ALUMINUM

Aluminum is a simple elementary substance. It is very abundant in the earth, being the third element in quantity. Oxygen is the most abundant. Nearly half of the entire earth is oxygen. A little more than a quarter of the earth is silicon. After these come aluminum, of which nearly 8 per cent of the earth is composed, and then iron, of which nearly 5½ per cent of the earth is composed. All clay contains a large proportion of aluminum. However, aluminum is not prepared from clay. It has not been possible to obtain it from clay as cheaply as from bauxite and cryolite.

THE HAGUE TRIBUNAL

The *Permanent Court of Arbitration* of the Hague consists of representatives nominated by the Governments of 44 nations (not more than four representatives from each; *) and in the event of the Court being called upon to hear a suit, it is necessary for the contending parties (a) to agree upon the subject-matter of dispute, (b) to appoint arbitrators and, if necessary, an umpire, (c) to submit the case through counsel or agents. The Court meets at the *Palace of Peace* at the Hague, opened in 1913, the building having been erected mainly at the expense of Andrew Carnegie, and each of the nations interested having contributed to its embellishment.

DECISIONS OF THE COURT

1902, U. S. v. Mexico (Pious Funds); 1904, Creditor Nations v. Venezuela (Preferential Claims); 1905, United Kingdom, France and Germany v. Japan (Perpetual Leases); 1909, Germany v. France (Casablanca deserters); 1909, United Kingdom v. France (Muscat Dhows); 1909, Norway v. Sweden (Maritime Boundary); 1910, U. S. v. United Kingdom (North Atlantic Fisheries); 1910, U. S. v. Venezuela (Orinoco S. S. Company); 1911, France v. U. K. (Savarkar incident); 1912, Italy v. Peru (Canevaro claim); 1913, Russia v. Turkey (arrears of interest); 1913, France v. Italy (seizure of S. S. *Carthage* and *Manouba*). *Cases pending:* United Kingdom, France and Spain v. Portugal (contested religious goods); France v. Peru (claims French creditors).

OFFICERS OF THE COURT

Secretary-General, Baron Michiels van Verduynen.

First Secretary, Jonkheer W. Röell.

President of the Administrative Council, The Netherlands Minister of Foreign Affairs.

MEMBERS OF THE COURT

The Court consists of the following members (with date of appointment):—

UNITED STATES OF AMERICA	
George Gray	11 Oct., 1900
Oscar S. Straus	9 Jan., 1902
Elihu Root	15 Dec., 1910
John Bassett Moore	27 Nov., 1912
ARGENTINA	
Estanislao S. Zeballos	6 July, 1907
Luis Maria Drago	6 July, 1907
Carlos Rodriguez Larreta	6 July, 1907
Joaquin V. Gonzalez	17 Oct., 1910
AUSTRIA-HUNGARY	
Henri Lammasch	4 Dec., 1900
Albert de Berzevitz	28 Oct., 1902
Baron Ernest de Plener	26 Feb., 1909
Francois Nagy	4 Dec., 1912
BELGIUM	
Baron Descamps	6 Oct., 1900
Ernest Nijs	5 Sept., 1905
Arendt	23 Jan., 1907
Jules Van den Heuvel	6 Nov., 1912
BOLIVIA	
Severo Fernandez Alonso	13 Sept., 1907
Claudio Pinilla	13 Sept., 1907
Ignacio Calderon	14 Feb., 1910
Eliodoro Villazon	1 Dec., 1913
BRAZIL	
Lafayette Rodrigues Pereira	13 Sept., 1907
Ruy Barbosa	13 Sept., 1907
Clovis Bevilacqua	13 Sept., 1907
Ubaldo do Amaral Fontoura	11 Feb., 1914
BULGARIA	
Stoyan Danef	
Dimitri Stancioff	23 July, 1901
Nicolas Ghénadieff	23 July, 1913
CHILE	
Carlos Concha	17 Oct., 1907
Miguel Cruchaga	17 Oct., 1907
Manuel Alejandro Alvarez	17 Oct., 1907
Eliodoro Yañez	31 May, 1913
CHINA	
Wu Ting-fang	4 April, 1905
Hoo-Wei-Teh	20 April, 1910

Liou She-shun	20 April, 1910
Jules Van den Heuvel	20 April, 1910
COLOMBIA	
General Jorge Holguin	26 Mar., 1908
General Marceliano Vargas	26 Mar., 1908
Marcelino Hurtado	26 Mar., 1908
Felipe Diaz Erazo	26 Mar., 1908
CUBA	
Antonio Sanchez de Bustamante	11 Jan., 1908
Manuel Sanguily	11 Jan., 1908
Cosme de la Torre	29 Jan., 1914
Juan de Dios Garcia Kohly	3 May, 1915
DENMARK	
J. H. Deuntzer	14 Oct., 1910
Axel Vedel	14 Oct., 1910
C. E. Cold	14 Oct., 1910
D. Nyholm	9 Oct., 1913
DOMINICAN REPUBLIC	
Apolinar Tejera	16 Sept., 1907
Mr. Cabral i Baez	13 May, 1914
Manuel A. Machado	13 May, 1914
Mr. de J. Troncaso de la Concha	13 May, 1914
ECUADOR	
Honorato Vasquez	18 Nov., 1907
Victor Manuel Rendon	18 Nov., 1907
Gonzalo F. Cordova	30 Jan., 1914
Augusto Aguirre Aparicio	30 Jan., 1914
FRANCE	
Leon Bourgeois	16 Nov., 1900
A. Decrais	21 May, 1905
Baron d'Estournelles de Constant	16 Nov., 1900
Louis Renault	16 Nov., 1900
GERMANY	
Dr. Kriege	30 Nov., 1906
Dr. Von Martitz	30 Nov., 1900
Dr. de Staff	19 May, 1911
Dr. Von Treutlein-Moerdes	21 Jan., 1914
GREAT BRITAIN	
Hon. Sir Charles Fitzpatrick	30 Sept., 1907
Earl of Desart	1 Jan., 1910
Rt. Hon. Viscount Bryce	28 Jan., 1913
GREECE	
Denis Stephanos	29 Dec., 1901
Georgios Streit	29 Dec., 1901
Michel Kebedgy	29 Dec., 1901
Nicolas Politis	18 June, 1914
GUATEMALA	
Antonio Batres Jáuregui	8 Feb., 1910
Carlos Salazar	8 Feb., 1910
Antonio Gonzalez Saravia	5 July, 1913
Alberto Mencos	5 July, 1913
HAITI	
Jaques Nicolas Leger	21 July, 1908
Solon Menos	21 July, 1908
F. D. Legitime	21 July, 1908
Tertulien Guilbaud	21 July, 1908
ITALY	
Victor Emmanuel Orlando	20 April, 1910
Tommaso Tittoni	24 April, 1911
Carlo Schanzer	12 Dec., 1912
JAPAN	
Baron Itchiro Motono	30 Nov., 1900
LUXEMBURG	
Henri Vannerus	10 Oct., 1903
MEXICO	
Jose Ives Limantour	7 Mar., 1907
Pablo Macedo	7 Mar., 1907
Carlos Pereyra	27 Dec., 1913
Joaquin D. Cassasus	2 June, 1908
NETHERLANDS	
Jonkheer A. F. de Savornin Lohman	1 Nov., 1900
Jonkheer G. L. M. H. Ruys de Beerenbrouck	1 Nov., 1900
P. W. A. Cort van der Linden	1 Nov., 1912
Jonkheer A. P. C. van Karnebeek	24 Oct., 1913

* Montenegro and Paraguay have not appointed any members.

NICARAGUA			Salvador Rodriguez Gonzalez.....	2 Nov., 1909
Désiré Pector.....	3 Mar., 1908		Alonso Reyes Guerra.....	7 Aug., 1911
Simon Planas Suarez.....			SERBIA	
Léon Vallez.....	6 July, 1914		George Pavlovitch.....	16 April, 1901
NORWAY			Milenko R. Vesnitch.....	16 April, 1901
George Francis Hagerup.....	23 Jan., 1903		SIAM	
Sigurd Ibsen.....	31 Mar., 1906		Corragioni d'Orell.....	9 June, 1901
H. J. Horst.....	31 Mar., 1906		Jens I. Westengard.....	6 Mar., 1911
PANAMA			SPAIN	
Belisario Porras.....	18 Mar., 1911		E. Dato y Iradiez.....	10 Jan., 1907
Ramon M. Valdés.....	12 July, 1913		Rafael M. de Labra.....	10 Jan., 1907
PERSIA			Manuel García Prieto, Marquis de Alhucemas.....	11 Jan., 1913
Mirza Samad-Khan Montazir-Saltaneh.....			Juan Alvarado y del Saz.....	9 May, 1916
Mirza Hassan Khan, Mouchir ul Dovich.....	12 May, 1905		SWEDEN	
PERU			Knut Hjalmar Leonard de Hammarskjöld.....	2 Dec., 1904
Ramán Ribeyro.....	23 May, 1910		Johan Fredrik Ivar Afzelius.....	18 Feb., 1905
Luis F. Villarán.....	23 May, 1910		Johannes Hellner.....	7 Dec., 1906
Manuel Alvarez Calderón.....	23 May, 1910		Baron Carl Nils Daniel Bildt.....	7 Dec., 1906
Lizardo Almazora.....	22 April, 1914		SWITZERLAND	
PORTUGAL			Charles Edouard Lardy.....	31 Dec., 1900
Fernando Matozo Santos.....	13 Nov., 1903		Eugène Huber.....	10 June, 1905
Francisco Antonio da Veiga Beirao.....			Leo Weber.....	3 Jan., 1910
José Capello Franco Frazao.....	25 May, 1910		TURKEY	
A. Pinto de Miranda Montenegro.....	25 May, 1910		Ibrahim Hakky Pasha.....	28 Jan., 1909
ROUMANIA			Osman Bey.....	2 April, 1915
Théodore G. Rosetti.....	21 Nov., 1910		Haladjean Effendi.....	2 April, 1915
Jean Kalinderu.....			Chéref Bey.....	2 April, 1915
Jean N. Lahovary.....	21 Nov., 1900		URUGUAY	
Constantin G. Dissescu.....	21 Nov., 1906		Juan Zorilla de San Martin.....	25 April, 1911
RUSSIA			Jose Pedro Massera.....	25 April, 1911
A. Sagoroff.....	20 Dec., 1909		Manuel B. Otero.....	13 Jan., 1914
M. Tagantzeff.....	20 Dec., 1909		VENEZUELA	
Baron de Taubé.....	20 Dec., 1909		Nicomedes Zuloaga.....	23 Mar., 1909
Baron Nolde.....	7 Feb. 1916		Francisco Arroyo Parejo.....	23 Mar., 1909
SALVADOR			Carlos León.....	23 Mar., 1909
Manuel Delgado.....	2 Nov., 1909		Manuel Antonio Matos.....	23 Mar., 1909
Salvador Gallegos.....	2 Nov., 1909			

THE UNITED STATES PUBLIC HEALTH SERVICE

The United States Public Health Service is a Bureau of the Treasury Department, and had its origin in the Act of July 16, 1798, "for the relief of sick and disabled seamen." A government medical service, designed primarily to care for the seamen of the merchant marine and to supervise the hospitals established for this purpose at various ports of the country, was the direct outgrowth of this law, and it became known as the Marine Hospital Service. Later, because of their medical training, the officers of this service cooperated with customs officers in preventing the introduction of disease by incoming vessels, and eventually the function of maritime quarantine was turned over to the Marine Hospital Service by Act of Congress.

In the prevention of the introduction of disease from abroad, the problems of preventing its spread once it had gained entrance naturally arose, and thus the study of causes and modes of transmission of disease was begun. Under Acts of Congress passed in 1890 and 1893, the function of interstate quarantine was given to the Marine Hospital Service.

By 1902, the activities of the service, aside from quarantine and the care of seamen, had become so widely diversified that a law was passed changing the name to the "Public Health and Marine Hospital Service." This law provided for a bureau organization in Washington such as exists at the present time. In 1912, the name was again changed by Congress to the "Public Health Service."

The head of the bureau in Washington is a commissioned medical officer, with the title of Surgeon General. The work of the Service is administered, under the direction of the Surgeon General, by seven bureau divisions—Personnel and Accounts, Scientific Research, Foreign and Insular Quarantine, Domestic (Interstate) Quarantine, Sanitary Reports and Statistics, Marine Hospitals and Relief, and Miscellaneous.

The commissioned corps of the service consists of medical officers of the following grades: Surgeon General, Assistant Surgeons General, Senior Surgeons, Surgeons, Passed Assistant Surgeons, and Assistant Surgeons. Appointments in the commissioned corps are made to the grade of Assistant Surgeon, after thorough professional and physical examination. Qualifications for admission to the entrance examination are graduation from a reputable medical college, one year's hospital ex-

perience or two years' professional work after graduation, and testimonials from responsible persons as to professional and moral character. Applicants for examination must be between the ages of 23 and 32 years.

The Public Health Service conducts 23 marine hospitals and 120 other relief stations throughout the country. Fifty-one quarantine stations in the United States and 25 stations in its insular possessions are also maintained, and 85 stations for the medical inspection of immigrants. Fifteen officers are stationed at American consulates abroad to assist in the administration of quarantine and the inspection of immigrants.

The Hygienic Laboratory, in Washington, D. C., is devoted to research work in connection with preventable diseases, sanitation, and pollution of streams, lakes and coastal waters. Here tests are also made of the purity and potency of viruses, serums and toxins, the Public Health Service being charged with the supervision of the manufacture and sale of these products in interstate traffic.

The Service cooperates with state and local boards of health in the eradication of epidemic diseases, such as plague, cholera, smallpox, yellow fever and typhus fever. Details of medical officers are also made, on request from state and municipal health authorities, to assist in the suppression of typhoid fever, infantile paralysis, cerebro-spinal meningitis, Rocky Mountain spotted fever, and other communicable diseases.

Supervision is maintained over the sanitary condition on, and the prevention of the spread of disease by interstate carriers, under interstate quarantine regulations promulgated by the Secretary of the Treasury.

Among the more conspicuous achievements of the Public Health Service in the field of preventive medicine during recent years are the eradication of yellow fever in the Southern States, and outbreaks of bubonic plague in San Francisco, San Juan, P. R., and New Orleans.

The personnel of the Service consists of 186 commissioned medical officers; 240 Acting Assistant Surgeons (physicians appointed locally and not subject to change of station); 50 pharmacists; 110 miscellaneous employees, including epidemiologists, sanitary engineers, sanitary chemists, bacteriologists, technical assistants, pilots, engineers, inspectors, etc.; 1,500 attendants—a total of 2,086 persons.

SOUTH AMERICA

It is only in recent years that commercial interests of the United States have given serious consideration to the industrial possibilities of South America.

The National City Bank of New York has taken advantage of the first opportunity afforded by our laws to establish branches in foreign countries, and it has branches in operation at Buenos Aires, Argentine; Rio de Janeiro, Santos and Sao Paulo, Brazil; Montevideo, Uruguay; Havana, Cuba and other cities in Latin America. These are the first in a general and comprehensive plan of foreign branch banking which this institution has undertaken as a specific and permanent aid to the development of the foreign commerce of the United States. Besides conducting all of the banking functions authorized by law, especial attention is given to foreign exchange transactions, the furnishing of credit information, and the preparation of specific trade information looking to the sale of American products and manufactures.

The building of the Panama Canal has been a wonderful stimulus to Southern market conditions. The opening of this great waterway and the inevitable changes in sea routes will work a practical revolution in commerce. The Atlantic seaports of the United States are almost on a straight north and south line with the Pacific Seaports of South America. The one great drawback, at present, is the smallness of the American Merchant Marine. British ships will undoubtedly carry the bulk of South American exports, and Great Britain will reap a big advantage from the Canal. The port of Callao will be 4,320 miles nearer to Liverpool, with a saving of 14 days in time. To Valparaiso the shortening in distance will be 1,813 miles.

PORT DEVELOPMENT

The countries with Pacific seabords are Colombia, Ecuador, Peru and Chile, and nearly all of the seaports are at present simply open roadsteads. Many improvements, however, are planned.

COLOMBIA. Buenaventura is the principal port, situated about 10 miles up to the River Buenaventura. The river is to be dredged, quays and buildings constructed, and electric power

installed. Tumaco is a boundary town between Colombia and Ecuador. There are no wharves, boats landing on the beach.

ECUADOR. Guayaquil is the principal port, about 33 miles up the River Doule, the largest on the west coast. At high tide vessels drawing 22 feet can pass up to the city. Bahia, at the entrance to the Caracas River, is the nearest port to Quito, the capital. The river is shallow and not easy of access. No improvements for either of these ports are contemplated at present.

PERU. Callao is the principal port, being the outlet for Lima, the capital. The harbor is one of the best on the Pacific coast. There are a number of piers, and now it is planned to build a large breakwater, to construct quays and modern warehouses. Mollendo is next in rank, but has no shelter, and operations are often interrupted by the swell of the current. Improvements are pending. Payta is the best open roadstead. There are two piers, well sheltered. Eten has an iron pier 878 yards long, for use of lighters and boats. Salaverry Port has gained importance through the building of the railway to Truxillo, connecting with the fertile valleys of Chicama. Pisco is a very old Peruvian port. It has a pier 600 yards long. There is good anchorage.

CHILE. This country has about 60 ports, most of which are only open roadsteads. Valparaiso is at present the chief port on the west coast of South America. Extensive improvements are being made, which will take 5 or 6 years to complete. At the port of San Antonio new works are in progress costing about \$4,000,000. Arica is the most northerly port of Chile, and if port improvements are carried out, should develop into great importance.

Among the nitrate ports Iquique ranks first. Its exports are 50 per cent more than Valparaiso, but its imports are less than half. Improvements are projected, but the nitrate shipping agents are not greatly in favor of a deep water port. Antofagasta is a large nitrate port, but has very poor facilities, with no progress in development.

The two principal coal ports in the southern part are Coronel and Lota. The port of Lebu may rank ahead of them if satisfactory improvements can be made.

COUNTRIES OF SOUTH AMERICA

Country	Capital	Gov. Head, Term Ends	Area Sq. Miles	Pop. Per Sq. Mile
Argentina	Buenos Aires	Hipolito Irigoyen, 1918	1,153,119	6.2
Bolivia	Sucre, La Paz	Dr. Ismael Montes, 1917	514,155	4.6
Brazil	Rio de Janeiro	Wenceslao Braz Pereira Gomez, 1918	3,218,991	5.4
Chile	Santiago	Juan Luis San Fuentes, 1921	292,580	11.1
Colombia	Bogota	Don José Vicente Concha, 1918	440,846	11.5
Ecuador	Quito	Alfredo Bazuerozo Morena, 1920	116,000	12.8
Paraguay	Asuncion	Dr. Emanuel Franco, 1920	165,000	4.8
Peru	Lima	Senor Don José Pardo, 1920	683,321	8.49
Uruguay	Montevideo	Dr. Feliciano Viera, 1919	72,153	17.0
Venezuela	Caracas	General Juan Vicente Gómez, 1922	398,594	5.7

COMMERCE OF SOUTH AMERICA

	Imports	Exports
Argentina	1915 \$45,378,546	1915 \$111,656,128
	1914 54,363,580	69,850,828
Bolivia	1915 1,578,645	6,790,271
	1914 3,180,897	5,184,091
Brazil	1915 30,088,000	52,970,000
	1914 35,439,000	46,511,000
Chile	1914 20,231,752	22,475,658
	1913 24,713,836	29,723,283
Colombia	1914 4,195,846	6,526,517
	1913 5,397,480	6,863,163
Ecuador	1914 1,666,471	2,590,424
	1913 1,752,517	3,130,877
Paraguay	1914 1,029,893	916,874
	1915 468,102	1,081,971
Peru	1913 6,088,777	9,137,781
	1914 4,827,930	8,767,790
Uruguay	1915 6,995,928	14,658,134
	1914 7,446,975	10,483,761
Venezuela	1915 2,335,063	4,103,988
	1914 3,524,414	5,555,714

INDUSTRIES AND PRODUCTION IN SOUTH AMERICA

ARGENTINA. The largest crop is wheat, of which the acreage is about 17,000,000. Maize is second, with 10,000,000 acres. It is estimated that there are 30,000,000 cattle and 70,000,000 sheep in Argentina.

There are about 32,000 factories employing a total of 340,000 people. The principal exports are agricultural and live-stock products. The principal imports are textiles, iron, and building materials.

BOLIVIA has no seaports. Its greatest wealth comes from its minerals. It mines about 40,000 tons of tin a year, supplying one quarter of the total tin output of the world. It also exports large quantities of silver and bismuth. About 5,000 tons of rubber are sent out of the country every season. The principal imports are textiles, cattle and provisions.

BRAZIL is an agricultural country, though only a small part of it is under cultivation. Coffee is the chief product. Four-fifths of the world's coffee comes from Brazil. The average annual crop is 13 million sacks. India rubber is another great natural product, Brazil producing half the world's supply. Three other large items of export are leather, cocoa and mate or Paraguay tea.

The most important manufacturing industry is cotton weaving, consequently the imports of yarn and thread are heavy.

Another large import is machinery. More than half of Brazil's imports are carried there by England.

CHILE. Agriculture and mining are the principal occupations. Over a million acres of wheat are raised annually. There are nearly 100,000 people employed in mineral works. About 2½ million tons of nitrate is exported annually. 1200 ozs. of gold is the annual production of that metal. The largest imports are cottons, woollens, oil and machinery.

COLOMBIA. The greatest wealth of this country is in its minerals. It exports large amounts of gold, silver and platinum. Nearly all the emeralds come from Colombia. Much of the soil is fertile but very little under cultivation due to lack of transportation facilities. The greatest items of export besides the precious metals are coffee, hides, bananas and rubber. The United States gets the largest percentage of exports. The chief imports are flour, lard, petroleum and cotton goods from the United States, rice from Germany and cotton goods from England.

ECUADOR. The staple product is cocoa of which about 86,000,000 pounds is the annual yield. One of the largest industries is the making of Panama hats. The chief exports are cocoa, ivory, nuts and rubber. The chief imports are textiles foodstuffs and iron-work.

PARAGUAY. The chief imports are textiles, provisions, hardware and fancy goods, 25% of which come from England. The chief exports are hides, Paraguay tea, oranges, tobacco, timber and dried beef. Most of the Paraguay tea grows wild in the virgin forests.

URUGUAY is an agricultural country. It has about 850,000 acres devoted to wheat and 150,000 to linseed. There are approximately 9,000,000 cattle and 27,000,000 sheep in Uruguay. The principal exports are wool, hides, and meats and extracts. France and Belgium get the largest percentage of these exports. The chief imports are textiles, iron and steel, and foods, of which England carries the largest amount.

VENEZUELA. The principal exports are coffee, cocoa, rubber, hides and gold. Of these the United States and France get the larger share. There are very few industries in Venezuela, nearly all manufactured articles required being imported. The United States and England share about equally in this trade.

Mr. E. N. Hurley, after a thorough investigation of South

American conditions, has made an exhaustive report to Department of Commerce.

Mr. Hurley makes three primary recommendations for the increase of American exports to Latin America. They are:

1. The establishment of a network of sales organizations and trading houses.

2. The development of steamship lines plying directly between North and South American ports.

3. The establishment of American banks and credit agencies in South America.

Secondary considerations are the encouragement of American business men to send young men to South America to familiarize themselves with the people and to grow up in business; the establishment by the state and commerce departments of more efficient diplomatic and commercial agencies; and the creation of a news exchange by which South American news will be handled properly in North America and North American news will receive proper and just treatment in South America.

With regard to the salesmen and sales agencies, Mr. Hurley says the United States is without an adequate supply of salesmen trained for the South American field. The difficulty is being remedied to some extent by some corporations which are sending men to Latin America.

One of the chief obstructions to overcome is the lack of trading houses and American agents in the field. Corporations which do not send their men to Latin America now are forced to deal through houses controlled by European interests.

The great opportunity for American sales in South America, lies, in demonstration, advertising, and follow up methods. The market is ripe for these tactics, but they must not be left to Europeans.

Mr. Hurley points out that the greater portion of the trade now carried to South America from this country goes first to Europe. He proposes that steamship lines plying between United States ports and those on both sides of South America be established immediately. With the opening of the Panama canal, he holds, the old method would be ridiculous.

The chief recommendation, however, is for the establishment of American banks and credit agencies in Latin America. At the present time every bit of business transacted by United States merchants there is handled through German or British banks and agencies.

RADIUM

The chief source of radium has been pitchblende, especially that obtained from the mines now controlled by the Austrian Government at Joachimsthal. It is also found in uranium ores mined in Saxony, Cornwall (England), Colorado, Russia, Africa and Australia.

The first operation is the separation of the uranium. The residues contain silica and numerous metals which have to be got rid of. At the end of the first or "opening up" process the radium remains as a chloride mixed with barium chloride. The final separation of the radium and barium salts may take several months.

It may require one hundred tons of ore to produce a single gram of radium. The enormous quantity of chemical reagents required to treat this mass of more or less inert material, and the long time consumed in the processes, as well as the delicacy and skill with which each step must be conducted, account for the high cost of the final product. There seems reason to

believe that it must always be comparatively expensive, at least with the present processes of extraction.

To treat a ton of uranium ore for radium contents requires fifty tons of water and five tons of chemicals, and this produces about a grain of radium. The price has gone up from \$75,000 a grain, to \$125,000 a grain.

Radium is estimated to have a life of over 2,000 years.

The first attempt to obtain radium in America was made by the Rare Metals Reduction Company in September, 1902, at Buffalo, New York, with 500 pounds of high-grade ore from Richardson, Utah, but only barium sulphates were found.

Just now the accounts of carnotite in Colorado and Utah are fluent throughout the world. In 1913 the Standard Chemical Company, of Pittsburgh, exported 45 milligrams of radium sulphate of high quality to Vienna, this being the first exportation of American radium-bearing ore from the Colorado district.

SHRAPNEL SHELL

The Shrapnel is really a flying cannon, which shoots its charge while in flight or explodes on impact. Its design involves many interesting features, as the case must be strong enough to withstand the bursting pressure and the stresses developed in firing.

The Shrapnel case must be able to withstand a pressure of from 30,000 to 35,000 pounds per square inch from the powder which drives it out of the gun, though it is tested to 40,000 pounds. In addition to this it must resist the charge of explosive in the base of the case; this base charge drives the head and balls out of the case, when a time or distance is used, or explodes it on impact with the earth or any other resisting substance.

This expelling or bursting charge exerts a pressure varying

from 20,000 to 25,000 pounds per square inch. Further than this, the torsional stress when the case is started whirling through the rifling of the gun by the force behind it, must be counted. This rotation starts the instant the shell begins its movement from the breech of the gun, and when we consider that, by the time it leaves the muzzle it must have attained a velocity of 1,700 feet per second, we can begin to see how an acceleration of 500,000 feet per second is attained.

These pressures explain why it is necessary to make the cases of such high quality material, a tensile strength of 135,000 pounds to the square inch, an elastic limit of 110,000 pounds per square inch, an elongation in two inches of 11 per cent, and the contraction of area 25 per cent.

WORLD'S CHIEF SOURCES OF SUPPLY

(A Year's Production)

Cattle (number)...	British India...	91,666,361	United States...	71,267,000	Russia.....	43,204,000	Argentina....	25,844,000
Pigs (number)....	United States...	56,084,000	Germany.....	22,080,000	Russia.....	12,734,000	Austria- Hungary..	12,013,000
Wheat (bu.)	United States...	664,600,000	Russia.....	569,500,000	France.....	310,500,000	Austria- Hungary..	229,300,000
Sugar-cane (tons)...	India.....	2,051,900	Java.....	945,774	Cuba.....	940,130	Hawaii.....	521,123
Sugar-beet (tons)...	Germany.....	2,124,326	Russia.....	1,125,997	Austria- Hungary..	1,023,963	France.....	656,832
Rice (tons).....	China.....	27,500,000	India.....	22,110,000	Java.....	4,704,000	Japan.....	4,693,000
Tea (lbs.).....	India.....	248,020,400	China.....	214,683,333	Ceylon....	179,834,462	Japan.....	60,455,913
Coffee (lbs.).....	Brazil.....	2,414,500,000	D'ch E. Indies	101,800,000	Guatemala	81,000,000	Colombia....	70,000,000
Cocoa (tons).....	Brazil.....	34,270	Ecuador.....	31,142	St. Thomas, W. Africa..	30,094	Trinidad....	23,260
Wine (gal.).....	France.....	1,331,900,000	Italy.....	840,890,000	Spain.....	418,616,000	Algeria.....	181,031,000
Tobacco (cwts.)...	United States...	6,411,000	India.....	5,000,000	Russia.....	1,447,000	D'ch E. Indies	1,101,000
Rubber (tons)....	Brazil.....	34,900	W. Africa....	14,800	Mexico.....	8,000	India and E. Indies.....	6,800
Silk (lbs.).....	China.....	13,545,000	Italy.....	12,753,000	Japan.....	12,725,000	Asia Minor...	3,051,000
Wool (lbs.).....	Australia....	616,252,000	Argentina....	420,000,000	Russia and Siberia....	360,000,000	United States	311,138,000
Cotton (lbs.).....	United States	5,886,093,107	India.....	1,600,340,000	Egypt.....	716,593,964	China.....	225,000,000
Timber exported.. (value).....	United States	\$69,735,000	Austria- Hungary...	\$69,500,000	Sweden.....	\$63,220,000	Russia... ..	\$60,500,000
Coal (tons).....	United States	428,895,914	United King- dom.....	267,830,962	Germany....	211,081,995	France.....	36,753,627
Petroleum (thous. of gal.).....	United States	6,976,000	Russia.....	2,598,000	D'ch E. Indies	365,400	Austria.....	348,600
Gold (value).....	Transvaal... ..	\$149,865,000	United States	\$92,915,000	Australia....	\$65,535,000	Russia.....	\$28,160,000
Silver (value)....	Mexico.....	\$50,565,000	United States	\$38,325,000	Canada.....	\$8,565,000	Germany....	\$8,480,000
Diamonds (value)..	Cape of Good Hope.....	\$20,685,000	Transvaal... ..	\$8,965,000	Orange Free State.....	\$5,740,000	Ger. So. West Africa.....	\$5,290,000
Pig Iron (tons)...	United States...	25,781,361	Germany.....	12,671,731	United King- dom.....	10,114,281	France.....	3,590,200
Steel (tons).....	United States...	23,955,000	Germany.....	11,860,000	United King- dom.....	5,882,000	France.....	2,987,000
Copper (tons)....	United States...	493,476	Mexico.....	61,000	Spain and Portugal....	52,188	Japan.....	42,310
Tin (tons).....	Fed. Malay States.....	68,856	Bolivia.....	29,937	D'ch E. Indies	15,807	Australia....	12,755

BEES AND HONEY

While the bee-keeping industry is rated as one of secondary importance, it has a value much greater than is ordinarily realized. It is most difficult to obtain any exact figures of the value of honey and wax produced in a year. The honey harvest varies greatly from year to year on account of climatic conditions affecting the nectar. Then there are thousands of amateur bee-keepers who make no report to the Department of Agriculture, but it is safe to say that the average annual value of honey and wax is in the neighborhood of \$35,000,000. According to the Department of Agriculture there were 3,445,000 colonies of bees in 1910 worth \$10,373,615. Texas, Missouri, California and North Carolina are the leading bee states in the order named. But the bee is not only valuable for its honey and wax. It is a wonderful agent of pollination. Estimating the population of a colony of bees at 10,000 in early spring, it may easily be seen how readily the orchardist may insure pollination by carrying a few colonies of bees to the orchard. Nearly all fruit growers recognize this value of the bee to their industry.

Heretofore it has been thought that bees could be cultivated only in the country where blooms were abundant, but experience has demonstrated that bees can be raised not only in the villages and towns, but also in cities. In New York a man interested in this subject has successfully raised colonies of bees on the top of one of the city skyscrapers.

Bees are not dependent on flowers common to the gardens of the cities or country. The nectar producing plants amount to many thousands, the majority of which are unknown even to those who have made a special study of this subject.

This nectar is transformed by the bees, and stored in the comb. Bees also often gather a sweet liquid called "honeydew," pro-

duced by various scale insects and plant-lice, but the honeydew honey made from it is quite unlike floral honey and should not be sold for honey. It is usually unpalatable and should never be used as winter food for bees. When nectar or honeydew has been thickened by evaporation and otherwise changed, the honey is sealed in the cells with cappings of beeswax.

Chemically considered, the ideal honey is a concentrated solution of invert sugar (i. e., of the sugars dextrose and levulose in equal proportions), with traces of ash, formic acid, nitrogenous bodies, dextrin, and other organic substances not sugar.

To make one pound of clover honey, bees must deprive 62,000 clover blossoms of their nectar, and to do this requires 2,750,000 visits to the blossoms. That is, one bee to collect enough nectar to make one pound of honey must go from hive to flower and back nearly three million times.

POTASH FERTILIZER IN HAWAII

In the Hawaiian Gazette of May 3, 1912, Dr. E. V. Wilcox announces that ordinary black volcanic sand, or lava cinder, millions of tons of which are deposited near the extinct craters in the Sandwich Islands, is found to yield from 2 to 7 per cent of potash. The potash is not in a readily soluble form and disintegrates slowly, but the sand itself will serve to loosen and lighten the heavy soil of the sugar fields, feeding the soil for several years after admixture. The commercial value of the sand for fertilizing purposes, owing to the potash impregnation, is estimated at \$5 or \$6 per ton, and it is available at slight cost for cartage. The discovery will be the means of great saving to the pineapple growers as well as the sugar planters in Hawaii.

STATISTICS OF THE WORLD

Area.....	196,900,000 sq. miles
Area of land.....	52,372,000 sq. miles
Area of fertile land.....	28,270,000 sq. miles
Population.....	1,610,000,000 souls
Age of earth.....	40 to 100 million years
Distance from Sun.....	93,000,000 miles
Equatorial diameter.....	7,926.5 miles
Equatorial circumference.....	24,902 miles
Polar diameter.....	7,809.5 miles
Density compared with water.....	5.55

Continental Area and Population

Continent	Area in sq. miles	Population	
		Number	Per sq. mi.
Africa.....	11,515,000	130,000,000	11.
America, N.....	9,323,000	115,000,000	12.
America, S.....	6,889,000	45,000,000	6.
Asia.....	17,057,000	900,000,000	53.
Australasia.....	3,456,000	5,500,000	1.
Europe.....	3,879,000	414,500,000	107.
Polar Regions.....	253,000	.....	.....

Approximate Area of the Largest Countries

1. British Empire.....	11,450,000 sq. miles
2. Russia (and possessions).....	8,500,000 sq. miles
3. France (and possessions).....	4,330,000 sq. miles
4. China (and possessions).....	4,300,000 sq. miles
5. United States (and possessions).....	3,750,000 sq. miles

Ocean Depth and Area

The oceans, including the inland seas connected with them, cover about 144,500,000 sq. miles, or 73.39% of the total surface.

Ocean	Greatest Depth	Area
Atlantic.....	27,366 feet	34,000,000 sq. miles
Pacific.....	31,000 feet	71,000,000 sq. miles
Indian.....	18,582 feet	28,000,000 sq. miles
Arctic.....	9,000 feet	4,000,000 sq. miles
Antarctic.....	25,200 feet	7,500,000 sq. miles

The greatest ocean depth is approximately the same as the greatest land height, but the average depth of the sea floor is about 12,000 feet, while the average land height above the sea is only 2,300 feet. The maximum depth in the Pacific is near the island of Mindanao and that in the Atlantic off the coast of Porto Rico.

Population by Races

Division	Color	Section	Est. Population
Mongolian.....	Yellow	Asia.....	685,000,000
Caucasian.....	White	Europe & America.....	650,000,000
Negro.....	Black	Africa.....	160,000,000
Semitic.....	White	North Africa.....	50,000,000
Malayan.....	Brown	Australasia, inc.	.....
		Malay Peninsula.....	50,000,000
Indian.....	Red	America, N. and S.....	15,000,000

Population by Religion

Christian.....	559,000,000
Catholic.....	270,000,000
Protestant.....	174,080,000
Greek Church.....	110,000,000
Abbyssinian Church.....	3,000,000
Armenian Church.....	1,700,000
Others.....	300,000
Hinduism.....	206,000,000
Mohammedanism.....	243,000,000
Buddhism.....	450,000,000
Polytheism.....	142,000,000
Jewish Religion.....	10,000,000

Of the total population of the world, about one-third are Christians.

Proportion of Women

In Europe, there are 1,000 men to 1,027 women; in Africa, 1,000 men to 1,045 women; in America, 1,000 men to 964 women; in Asia, 1,000 men to 961 women; in Australia, 1,000 men to 937 women.

The highest proportion of women is found in Uganda, where there are 1,467 to every 1,000 men. The lowest proportion is in Alaska and the Malay States, where there are in the former 391 and in the latter 389 to every 1,000 men.

Largest Cities in the World

City	Country	Population
Greater London.....	England.....	7,252,963
London.....	England.....	4,521,685
New York.....	United States.....	5,333,539
Paris.....	France.....	2,888,110
Chicago.....	United States.....	2,393,325
Tokyo.....	Japan.....	2,186,079
Berlin.....	Germany.....	2,071,257
Vienna.....	Austria.....	2,031,498
Petrograd.....	Russia.....	2,018,596
Philadelphia.....	United States.....	1,657,810
Moscow.....	Russia.....	1,617,157
Buenos Aires.....	Argentina.....	1,560,163
Calcutta.....	India.....	1,222,313
Constantinople.....	Turkey.....	1,200,000
Osaka.....	Japan.....	1,226,647
Peking.....	China.....	1,077,209
Canton.....	China.....	900,000

Principal Languages of the World

No. Persons	No. Persons
Spoken by	Spoken by
English.....	150,000,000
German.....	120,000,000
Russian.....	90,000,000
French.....	60,000,000
Spanish.....	55,000,000
Italian.....	40,000,000
Portuguese.....	30,000,000

There are approximately 3,500 languages or dialects in the world. The English has grown faster than any other language during the past century.

Highest Structures in the World

	Feet
Eiffel Tower, Paris.....	984
Woolworth Building, New York City.....	750
Metropolitan Building, New York City.....	700
Singer Building, New York City.....	612
Equitable Building, New York City.....	600
Municipal Building, New York City.....	580
Washington Monument, Washington, D. C.....	555
City Hall, Philadelphia, Pa.....	549
Bankers' Trust Co. Building, New York City.....	539
Cologne Cathedral, Cologne, Germany.....	501
Adams Building, New York City.....	450
Pyramid of Cheops, Memphis, Egypt.....	450
St. Peter's, Rome, Italy.....	391
St. Paul's, London, England.....	366
Milan Cathedral, Milan, Italy.....	360

World's Postal Statistics
(From Annual Reports)

Country	Letters and Post Cards	No. of Post Offices
United States.....	8,000,000,000	59,239
United Kingdom.....	4,000,000,000	24,006
Germany.....	4,000,000,000	50,500
Austria-Hungary.....	1,500,000,000	16,000
France.....	1,350,000,000	13,000
Japan.....	1,200,000,000	7,000
Russia.....	1,000,000,000	15,000
India.....	750,000,000	19,500
Canada.....	500,000,000	12,800
Italy.....	400,000,000	10,000
Argentina.....	350,000,000	3,000
Australia.....	320,000,000	7,750
Switzerland.....	270,000,000	4,100

World's Crops

The latest statistics of total crops raised per year on the earth are:

Corn.....	3,672,636,000 bu.	Barley.....	1,385,245,000 bu.
Wheat.....	3,626,336,000 bu.	Oats.....	4,410,686,000 bu.
Rye.....	1,675,898,000 bu.	Cotton.....	19,171,000 bales
Tobacco.....	2,595,247,000 lbs.	Potatoes.....	5,523,864,000 bu.
Sugar.....	17,097,704 tons		

Height of Famous Mountain Peaks

ASIA	Everest.....	29,002 feet
	Godwin-Austen.....	28,865 feet
	Kinchinginga.....	28,156 feet
SOUTH AMERICA	Aconcagua.....	23,080 feet
	Mercidario.....	22,315 feet
	Tupunagato.....	21,550 feet
	Illampu.....	21,490 feet
	Cotopaxi.....	19,612 feet
NORTH AMERICA	McKinley.....	20,498 feet
	Logan.....	19,539 feet
	Rainier.....	14,526 feet
EUROPE	Elburg.....	18,526 feet
	Mont Blanc.....	15,781 feet
	Matterhorn.....	14,709 feet
	Jungfrau.....	13,761 feet

World's Longest Rivers

River	Outlet	Length in Miles
Amazon.....	Atlantic.....	4,200
Nile.....	Mediterranean.....	3,800
Yenisei.....	Arctic Sea.....	3,200
Yangtze.....	North Pacific.....	3,300
Missouri & Mississippi.....	Gulf of Mexico.....	3,200
Ob.....	Arctic Sea.....	3,200
Congo.....	Atlantic.....	2,900
Niger.....	Gulf of Guinea.....	2,700
Amur.....	Sea of Okhotsk.....	2,700
Hoang.....	Yellow Sea.....	2,500
Volga.....	Caspian Sea.....	2,300
Mackenzie.....	Beaufort Sea.....	2,400
La Plata.....	South Atlantic.....	2,300
Yukon.....	Behring Sea.....	2,000
St. Lawrence.....	Gulf of St. Lawrence.....	2,300

Famous Waterfalls of the World

Name and Location	Height in Feet
Gavarnie, France.....	1,385
Grand, Labrador.....	2,000
Minnehaha, Minnesota.....	50
Missouri, Montana.....	90
Montmorenci, Quebec.....	265
Multnomah, Oregon.....	850
Murchison, Africa.....	120
Niagara, New York-Ontario.....	164
Rjukan, Norway.....	780
Schaffhausen, Switzerland.....	100
Skjaeggalsfos, Norway.....	530
Shoshone, Idaho.....	210
Staubach, Switzerland.....	1,000
Stirling, New Zealand.....	500
Sutherland, New Zealand.....	1,904
Takkakaw, British Columbia.....	1,200
Twin, Idaho.....	180
Yellowstone (upper), Montana.....	110
Yellowstone (lower), Montana.....	310
Ygnassu, Brazil.....	210
Yosemite (upper), California.....	1,436
Yosemite (middle), California.....	626
Yosemite (lower), California.....	400
Vettis, Norway.....	950
Victoria, Africa.....	400
Voringfos, Norway.....	600

World's Greatest Lakes

Chad.....	20,000 sq. miles	Huron.....	23,800 sq. miles
Superior.....	31,200 sq. miles	Michigan.....	22,450 sq. miles
Vict. Hyanza.....	26,500 sq. miles		

World's Largest Islands

Greenland.....	750,000 sq. miles	Madagascar.....	228,000 sq. miles
New Guinea.....	330,000 sq. miles	Sumatra.....	160,000 sq. miles
Borneo.....	280,000 sq. miles	Gr. Britain.....	88,000 sq. miles

WORLD'S LARGEST ISLANDS—Continued.

Australia, of course, is the largest island of all, with an area of nearly 3,000,000 sq. miles, but Australia is now generally considered to be a continent.

Railways of the World

Old World	Miles	New World	Miles
Europe.....	207,488	North America.....	283,511
Asia.....	63,341	South America.....	43,638
Africa.....	22,905	Australasia.....	19,275

293,734

346,424

A total of 640,158 miles for the whole globe, which is a gain of 14,460 miles in one year, of which increase 6,221 miles were in the Old World and 8,239 in the New.

In 1840 there were only 4,772 miles of railroad. In the last 10 years, 149,092 miles have been built. Thirty per cent. of the railroads are government owned or controlled—107,746 miles in Europe, 36,365 in Asia, and 18,036 miles out of the 19,275 miles in Australasia.

Miles of Telegraph Line

Country	Miles	Country	Miles
United States.....	225,000	Argentina.....	38,000
Russia.....	120,000	Mexico.....	22,000
Germany.....	140,000	Brazil.....	38,000
India.....	72,000	Italy.....	35,000
France.....	110,000	Turkey.....	28,000
Austria-Hungary.....	53,000	Spain.....	23,000
United Kingdom.....	60,000	China.....	27,000
Canada.....	37,000		
Australia.....	43,000	The World.....	1,307,000

In proportion to the number of people, New Zealand and Australia have the most telegraph lines.

OCEAN CABLES

Ownership	Miles	Ownership	Miles
British.....	160,000	German.....	10,000
United States.....	50,000	Other Nations.....	12,000
French.....	25,000		
Danish.....	11,000	Total.....	268,000

The first ocean cable was laid across the English Channel between Dover and Calais in 1850.

Telephones in the World

Country	Miles of Wire	Stations
United States.....	17,017,393	7,659,475
German Empire.....	3,121,000	1,006,800
Great Britain.....	2,047,680	639,900
Canada.....	568,746	284,373
France.....	830,520	230,700
Sweden.....	223,200	186,000
Russia and Finland.....	318,500	172,900
Japan.....	222,098	117,394
Austria.....	302,000	111,880
Denmark.....	229,600	95,700
Switzerland.....	210,600	78,000
Italy.....	144,600	72,300
Norway.....	119,400	54,300
Spain.....	55,660	25,300
Elsewhere.....	1,233,370	500,965
Total.....	26,644,367	11,235,987

World's Longest Bridges

Name	Location	Length Miles Yds.
Tay.....	Scotland.....	2 73
Ohio.....	Illinois.....	2 —
Forth.....	Scotland.....	1 1,005
Missouri.....	Missouri.....	1 784
Queensborough.....	New York.....	1 1,107
Williamsburgh.....	New York.....	1 213
Manhattan.....	New York.....	1 520
Victoria.....	Montreal.....	1 413
Susquehanna.....	Maryland.....	1 345
Brooklyn.....	New York.....	1 78

Plans of the proposed bridge across San Francisco Bay to Oakland have been filed with the Board of Supervisors in San Francisco. It will be 3 miles long. The total suspension will be 5,946 yards. The estimated cost is \$26,000,000.

Longest Tunnel in the World

The Russian Government is planning the longest tunnel in the world. It is to be fifteen miles long and, with other facilities, will connect Tiflis and Vladikavkas, the latter place being a town in Ciscaucasia. The two places are only 125 miles apart, and at the present time a roundabout journey of 940 miles is necessary in order to go from one place to the other.

Leading Art Galleries of the World

EUROPE

Louvre, Paris; Dresden Gallery, Dresden; Vatican, Rome; Uffizi, Florence; Pitti Gallery, Florence; Museo del Prado, Madrid; National Gallery, London.

AMERICA

Corcoran Art Gallery, Washington, D. C.; Metropolitan Museum of Art, New York, N. Y.

The World's Most Famous Diamonds

Name	Carats
Cullinan.....	3,025
D'Angleterre (blue).....	44½
Etoile Polaire.....	40
Etoile du Sud.....	124
Grand Duc de Toscane.....	133.16
Great Mogul.....	279½
Imperatrice Eugenie.....	51
Kohinoor (first cutting).....	279
Kohinoor (second cutting).....	106½
Loterie d'Angleterre.....	49
Nassau.....	78½
Orloff.....	194½
Pacha d'Egypt.....	40
Regent.....	136½
Sancy.....	53½
Shah.....	86
Tiffany.....	969
Tiffany (yellow).....	125

Famous Streets of the World

Berlin—Unter den Linden.
Buenos Aires—Avenida de Mayo.
Chicago—State Street.
City of Mexico—Paseo de la Reforma.
Cleveland—Euclid Avenue.
Dublin—Sackville Street.
Edinburgh—Princes Street.
London—Fleet Street and the Strand.
Madrid—Paseo del Prado.
Munich—Ludwigstrasse.
New Orleans—Canal Street.
New York—Broadway.
Paris—Avenue des Champs Elysees.
Philadelphia—Chestnut Street.
Rio de Janeiro—Avenida Central.
Rome—The Corso.
San Francisco—Market Street.
St. Petersburg—Nevski Prospect.
Vienna—Ringstrasse.
Washington—Pennsylvania Avenue.

World's Most Noted Bells

The most costly set of chime bells probably in the world are those hung 642 feet above the earth in the Metropolitan Tower, New York City. The four bells, weighing 20,000 pounds, cost approximately \$30,000.

The greatest value in any single bell of the present century is represented in the Columbian Liberty Bell, cast in the summer of 1893 for the World's Fair, at Chicago. It is estimated that more than 200,000 men, women and children contributed to this bell in some way, the bell weighing 13,000 pounds and representing the 13 original States. Many offerings were in the form of heirlooms of precious metal and relics from the Civil and Revolutionary wars.

The cost of the modern bell does not compare with some of those cast in ages past. "Tsar Kokoloi" (the great bell of Moscow) weighs 492,800 pounds. The bell material alone cost \$340,000, while it is said that more than \$1,000,000 in precious stone and plate were used in its composition. The "Great Bell of China," in Peking, weighs 12,000 pounds. "Great Tom," Oxford's famous bell, weighs 16,000 pounds; while the heaviest bell in America, in the Cathedral of Montreal, weighs 28,560 pounds.

World's Largest Telescope

The world's largest telescope (100 inches) is nearing completion at Mount Wilson Observatory, in Pasadena, California. Stars three times farther than the most distant one now known will be visible. This lens will be 13 inches thick and weigh four and one-half tons. Galileo's little telescope increased the seeing power of the human eye about 130 times; the new telescope will increase it 250,000 times. It will probably make visible stars whose light traveling at the rate of 186,300 miles per second requires 150,000 years to reach the earth.

Another large telescope having a main lens 72 inches in diameter is to be erected about 8 miles north of Victoria, B. C. In the beginning of 1914 contracts for the optical parts and the mounting were let to the John A. Brashear Company of Pittsburgh and the Wagner and Swasey Company of Cleveland, respectively. It is expected that the completed telescope will be installed by January, 1916. It will cost more than \$90,000.

Study of the World

Geology—Study of Earth's Crust.
Geodasy—Study of Earth's Measurements.
Geography—Study of Earth's Surface.
Physiography—Study of Earth's Superficial Features.
Oceanography—Study of the Oceans.
Limnology—Study of the Lakes.
Orography—Study of the Mountains.
Ethnology—Study of the Races.
Ethnography—Study of Habitation of Races.
Biology—Study of Organic Life.
Palaeontology—Study of Extinct Organic Life.

Around the World in Thirty-five Days

The world's record for globe-girdling, 39 days, 19 hours, 43 minutes, and 37 4-5 seconds, set by Andre Jaeger-Schmidt of the Paris paper *Excelsior* in 1911, was broken by 3 days, 22 hours, and 37 seconds on August 6, 1913, when John Henry Mears arrived at the *New York Sun* office, completing the circuit of the world he had begun under the auspices of that paper a few minutes before 1 o'clock on the morning of July 2. Mears made the world trip of 21,066 miles in 35 days, 21 hours, 43 minutes, and 4-5 second, traveling at an average rate of 587 miles a day, or 24 1-2 miles an hour. Jaeger-Schmidt had traveled 19,300 miles at an average daily rate of 480 miles, or 20 miles an hour.

SHIP CANALS OF THE WORLD

Canal.	Date of opening	Length (miles).	Depth (feet).	Width (feet)	
				Top.	Bottom.
Amsterdam, connecting Zuider Zee with North Sea.....	1877 1914	16.5 8	23 25	197	89 100
Cape Cod Canal.....					
Corinth, connecting Gulf of Corinth with the Gulf Aegina.....	1893 1885	4 17.5	26.2 22		72 200
Cronstadt, St. Petersburg					
*Erie, from Buffalo to Albany.....	1825	352	9	70	56
Kaiser Wilhelm, connecting North Sea and Baltic	1895	61.3	29.5	220	72
Manchester Ship Canal connecting Manchester, England, with the Mersey River.....	1894	35.5	26	175	120
Panama, extending from Colon to the city of Panama and connecting the Atlantic and Pacific	1914	50.5	41	1,000 to 300	649 to 300
Sault Ste. Marie, connecting the waters of Lake Superior with those of the St. Mary's River and Lake Huron	1896	2	21		160
Suez, connecting the Mediterranean with the Red Sea.....	1869	100	31	420	262

*The canal is in the course of being enlarged to accommodate boats of about 3,000 tons burden, and this end it is to be made 12 feet deep, 75 feet wide at the bottom and 123 to 171 feet at the surface.

DEEPEST WELLS IN THE WORLD

Location.	Depth	Diameter.	Object.
East of Rybnick, Upper Silesia, Germany.....	Feet. 6,572	Inches. 3.6 to 2.7	Coal
Schladelback, near Leipsic, Germany.....	5,735	11 to 1.3	Coal.
Knurów, Upper Silesia. Springs, 25 miles east of Johannesburg, South Africa.....	4,173	192 to 13	.....
Dornkloof, 16 miles east of Randfontein, S. Africa.....	5,582	2 to 1½	.....
Randfontein, South Africa.....	5,560	2 to 1½	Diamond.
Turfontein Estates, Johannesburg, South Africa.....	5,002	.....	Diamond.
Near Boksberg on the Rand, South Africa.....	4,845	.....	Diamond.
Clerksberg district, South Africa.....	4,800	.....	.....
In the Vlakfontein district, South Africa.....	4,500	.....	.....
In the Black Reed series, 12 miles south of the Main Reef series on the Rand.....	4,003	.....	.....
2½ miles west of West Elizabeth, Pa.....	4,500	.....	Diamond.
In Aleppo Township, Greene County, Pa.....	5,322	10 to 6½	Oil.
Pittsburgh, Pa.....	4,618	13 to 6½	Gas.
4 miles southeast of Wheeling, W. Va.....	4,500	.....	Oil or gas.
In the city of Erie, Pa.....	4,460	4½	.....do....
Irwin, Westmoreland County, Pa.....	4,380	.....	.....do....
Buchanan well, 6½ miles south of Burgettstown, Pa.....	4,303	.....	.....do....
Northampton, Mass.....	4,022	.....	Water.
New Haven, Conn.....	4,000	8	.....do....
Renovo, Pa.....	4,000	.....	Oil.
Bimerah Run, Queensland	5,045	.....	Water.
†Elderslie, No. 2, Queensland.....	4,523	.....	.....do....
Dolgelly bore, New South Wales.....	4,086	.....	.....do....
One well in state of South Australia.....	4,420	.....	.....do....

* Cost \$40,000. Deepest well drilled with a cable; deepest well in the United States; third deepest well in the world.

† Flow, 1,600,000 gallons a day; temperature 202 degrees F.

CLIMBING WORLD'S GREATEST MOUNTAINS.

The following tables give the names of the highest peaks in different ranges with the name of the one who made the first or most notable ascent.

Name	Locality.	Height.	By whom ascended.	Date.
Everest.....	India.....	29,002	Unclimbed....	.....
Goodwin Austen.....	India.....	28,565	Unclimbed....	.....
Bride Peak.....	India.....	25,100	Abruzzi *.....	1909
Kabru.....	India.....	24,015	Graham (?) ..	1883
Pyramid Peak... ..	India.....	24,470	Unclimbed....	.....
.....	.....	23,394	Dr. Workman.	1906
.....	.....	23,000	Mrs. Workman	1906
Trisul.....	India.....	24,015	Longstaff.....	1907
Aconcagua.....	So. America...	23,080	Vines.....	1897
Huascaran.....	So. America...	22,182	Unclimbed....	.....
Numzkum.....	India.....	21,812	Miss Peck.....	1908
.....	.....	22,000	Dr. Mario Piccenza.....	1913

* To 24,583 feet, the world's record climb.

Name	Locality	Height	By whom ascended	Date
Chimborazo.....	So. America...	20,498	Whymper.....	1879
McKinley.....	Alaska.....	20,498	Hudson Stuck..	1913
Kilimandjaro.....	E. Africa.....	19,680	Meyer.....	1887
St. Elias.....	Alaska.....	18,100	Abruzzi.....	1897
Elbruz.....	Caucasus.....	18,347	Freshfield.....	1868
Ruvenzari.....	E. Africa.....	16,815	Abruzzi.....	1906
Blackburn.....	Alaska.....	16,400	Miss Keen.....	1912
Mont Blanc.....	Switzerland..	15,781	Balmat.....	1786
Mattehorn.....	Switzerland..	14,698	Whymper.....	1865
Monte Rosa.....	Switzerland..	15,217	Smythe.....	1855
Whitney.....	California....	14,499	Lucas.....	1873
Rainier.....	Washington..	14,526	Stevens.....	1876
Grand Teton.....	Wyoming.....	13,800	Langford.....	1872
Erebus.....	Antartic.....	13,120	David.....	1908
Robson.....	Canada.....	13,700	Kinney.....	1909

DISTANCE OF THE HORIZON AT VARIOUS ELEVATIONS AT SEA

Height	Dist. to Horizon	Height	Dist. to Horizon	Height	Dist. to Horizon
Feet	Nautical Miles	Feet	Nautical Miles	Feet	Nautical Miles
1	1.15	33	6.60	85	10.59
2	1.62	34	6.70	90	10.90
3	1.99	35	6.80	95	11.19
4	2.30	36	6.89	100	11.48
5	2.57	37	6.99	105	11.77
6	2.81	38	7.08	110	12.05
7	3.04	39	7.17	115	12.32
8	3.25	40	7.26	120	12.58
9	3.45	41	7.35	125	12.84
10	3.63	42	7.44	130	13.10
11	3.81	43	7.53	135	13.35
12	3.98	44	7.62	140	13.60
13	4.14	45	7.70	145	13.83
14	4.30	46	7.79	150	14.06
15	4.45	47	7.87	155	14.30
16	4.59	48	7.96	160	14.53
17	4.74	49	8.04	165	14.75
18	4.87	50	8.12	170	14.97
19	5.01	51	8.20	175	15.19
20	5.14	52	8.29	180	15.41
21	5.26	53	8.36	185	15.62
22	5.39	54	8.44	190	15.83
23	5.51	55	8.52	195	16.04
24	5.63	56	8.60	200	16.24
25	5.74	57	8.67	205	16.44
26	5.86	58	8.75	210	16.64
27	5.97	59	8.82	215	16.84
28	6.08	60	8.90	220	17.03
29	6.19	65	9.26	225	17.23
30	6.29	70	9.61	230	17.42
31	6.40	75	9.95	235	17.61
32	6.50	80	10.27	240	17.79

By this table the distance can be ascertained at which an object can be seen according to its elevation and the elevation of the eye of the observer.

Example: A tower 290 feet high will be visible at 20½ miles to an observer whose eye is elevated 15 feet above the water. Thus:

15 feet elevation distance visible 4.45 nautical miles. Tower 290 feet elevation distance visible 16.24 nautical miles. Total equals 20.69 nautical miles.

WATER POWERS OF THE WORLD

When it is remembered that two cubic feet of water, weighing 125 pounds, by falling a distance of only six feet, will produce one horse-power of energy, it is easy to comprehend that millions and millions of horse-power are wasted every minute by the torrents of water tumbling over Niagara Falls, Victoria Falls, the Yguassu River and many lesser falls throughout the world. This falling water may be guided by concrete penstocks to powerful water turbines which whirl great electric generators. The current produced in this way is easily transmitted for hundreds of miles over small copper wires to the cities and towns, where it is used to haul the railroad trains, to drive the great manufacturing plants and to give us light and heat. The water-power of Victoria Falls in Rhodesia is estimated to be fully 35,000,000 horse-power, two and one-half times that of Yguassu in South America and eight times that of Niagara. By way of comparison it should be noted that the aggregate water power of the whole of Europe cannot greatly exceed 35,000,000 horse-power. The demands which are made at present on these falls are modest. The Victoria Falls Power Company ask for only 150,000 horse-power, less than one two-hundredth part of the whole.

The total water power of the Yguassu Fall which is 213 feet high and nearly two miles wide, is estimated as about 14,000,000 horse-power. This is approximately equal to the aggregate water power of all Scandinavia, which is rich in waterfalls, or about ten times the total water power of Germany.

Niagara Falls has an estimated movement of 220,000 cubic feet per second. The descent at the falls and in the rapids above generates a theoretical horse-power of 4,000,000, three-fourths of which is practically available. Approximately 15,000 cubic feet of the water has been harnessed but much larger appropriations have been authorized.

Other Waterfalls

Asia is comparatively poor in large waterfalls, which are found most abundantly in Africa and North America. The largest African streams especially are interrupted by many falls of

considerable height. The Congo has several high falls which, owing to the great volume of the river (about 16 times that of the Nile), may be counted among the most important sources of water power on earth. The Stanley Falls, in the middle reach of the river, consist of seven successive falls, of a total height of 164 feet and a width of nearly 4,000 feet, and offer an exceedingly rich source of power, which probably will soon be exploited.

Still more important is the total water power which the Kongo develops in the non-navigable section extending from its mouth to Stanley Pool. Here the river, confined in a channel only a few hundred yards wide and with a depth of water of nearly 300 feet, flows with a velocity of 48 feet a second, so that at every point of the stream 25,000 to 30,000 cubic meters, or about 1,000,000 cubic feet of water are hurled along with irresistible force, while 32 rapids and waterfalls lower the level of the stream by 820 feet in a stretch of 170 miles.

The most voluminous of European waterfalls are the Rhine Falls at Schaffhausen, but the highest are the Rjukan Falls of the Mann-Elf River in the Norwegian province of Telemarken. The two chief falls, with the intervening rapids, amount to 1837 feet, while the average flow is 1760 cubic feet per second. The Rjukan Falls, with their total energy of 250,000 horse-power, have been converted to industrial uses.

In Sweden, the Falls of Trolhatta are the most celebrated. They have been nearly all employed for the production of electricity. The government itself has recently established here a power station with a capacity of 40,000 horse-power. This, now the largest water power plant station in Europe, will soon be surpassed, however, by the station at Rjukan in Norway and by a still larger station in the north of Sweden, which will serve for the operation of the Lofoden railway. The Porjus Falls, at which the last mentioned station will be placed, is only one fall, or rapid, of a long series formed by the Lule-Elf near its source in the lake region of Lapland. The Porjus power station is expected to reach completion in 1914 and to develop soon afterward about 80,000 horse-power, and it is estimated that its total water power in summer after its sources of supply have been regulated, will be about 300,000 horse-power.

WORLD'S DEVELOPMENT OF POPULATION, PRODUCTION, VESSEL TONNAGE, AND COMMERCE

(1800 to 1913)

Year.	Popu- lation.	Commerce		Nominal tonnage of Vessels.		Rail- ways.	Tele- graphs.	Cables.	Production of cotton, coal, and pig iron.			Gold pro- duction, decade ending year named.
		Total.	Per capita	Sail.	Steam				Cotton.	Coal.	Pig iron.	
	Millions	Million dollars.	Dollars.	1,000 tons. ¹	1,000 tons. ¹	1,000 miles. ¹	1,000 miles.	1,000 miles.	Million pounds. ¹	Million tons.	Million tons. ¹	Million dollars. ²
1800	640	1,479	2.31	4,026	20	0.2	.....	.....	520	11.6	0.8	128.5
1820	780	1,659	2.13	5,814	111	0.2	.....	.....	630	17.2	1.0	76.1
1830	847	1,981	2.34	7,100	111	0.2	.....	.....	820	25.1	1.8	94.5
1840	950	2,789	2.93	9,012	368	5.4	.....	.....	1,310	44.8	2.7	134.8
1850	1,075	4,049	3.76	11,470	864	24.0	5	.....	1,435	81.4	4.7	363.9
1860	1,205	7,246	6.01	14,890	1,710	67.4	100	1½	2,551	142.3	7.2	1,334.0
1870	1,310	10,663	8.14	12,900	3,040	139.9	281	15	2,775	213.4	11.9	1,263.0
1880	1,439	14,761	10.26	14,400	5,880	224.9	440	49	3,601	340.0	18.0	1,150.8
1890	1,488	17,519	11.80	9,166	8,295	390.0	768	132	5,600	466.0	27.2	1,060.1
1900	1,543	20,105	13.02	6,674	13,857	500.0	1,180	200	6,247	800.0	40.4	2,100.0
1906	1,579	27,418	17.36	5,809	19,713	564.0	1,200	9270	7,650	885.0	58.7	3,099.8
1910	1,616	33,634	20.81	4,624	22,056	637.0	1,307	291	10,356	1,141.6	65.8	3,780.3
1911	1,630	35,909	21.71	4,466	23,932	666.0	1,356	318	10,149	1,164.1	62.4	4,242.2
1912	1,643	39,570	24.08	4,038	24,978	683.4	1,400	320	10,729	1,363.9	71.4	4,708.4
1913	1,652	40,420	24.47	3,891	26,517	690.2	1,462	330	10,611	1,443.4	77.4	.....

¹ Mulhall's estimates except for 1830, 1890, 1900, 1906, and later years.

² Soetbeer's estimates prior to 1860.

³ Malte-Brun's estimate for 1804.

⁴ Based on Balbi's estimate for 1828.

⁵ Based on Michelet's estimate for 1845.

⁶ Based on Behm-Wagner's estimate for 1874.

⁷ Levasseur's estimate for 1878.

⁸ Royal Geographic Society's estimate.

⁹ Figures of the Berne International Institute.

¹⁰ Figures of the Bureau of the Census, representing net weight for mill consumption.

¹¹ Figures of the Geological Survey.

¹² Estimate of the Imperial Post Office of Germany for June 30, 1912.

¹³ Preliminary estimate of the Bureau of Census

¹⁴ Partly estimated.

RAILWAY, TELEGRAPH AND POSTAL STATISTICS OF THE WORLD

Country	Railways	Telegraphs		Post offices	Miles of postal routes
	Miles	Miles of line	Miles of wire		
Argentina.....	21,909	45,272	142,104	3,875	50,107
Australasia: Commonwealth of Australia	19,987	51,969	109,712	8,264	137,314
New Zealand.....	2,889	13,044	44,642	2,383	
Austria-Hungary:					
Austria (inc. Bosnia, Herzegovina).....	15,631	31,499	154,945	10,726	162,286
Hungary.....	13,596	16,396	99,862	6,489	66,821
Belgium.....	5,451	5,206	28,014	1,708	5,828
Kongo, Belgian.....	882	1,622	1,622	50	13,919
Bolivia.....	895	3,811	5,562	200	
Brazil.....	15,279	36,199	73,124	3,415	92,312
Bulgaria.....	1,388	4,122	9,687	409	15,238
Canada.....	29,304	52,384	162,779	14,178	
Central American States:					
Costa Rica.....	402		1,521	204	
Guatemala.....	502		3,783	323	
Honduras.....	174	305	3,212	278	
Nicaragua.....	200		3,637	151	
Panama.....	298			96	
Salvador.....	198		2,841	117	1,848
Chile.....	3,958	22,384	30,287	1,104	28,752
China.....	6,123	36,350	58,948	6,816	133,000
Colombia.....	621	11,721	11,721	608	
Cuba.....	2,331	5,065	6,184	574	5,324
Denmark.....	2,419	2,293	8,373	1,665	6,477
Dominican Republic.....	400	1,269	1,269	105	
Ecuador.....	652	3,318	3,318	151	
Egypt.....	3,707	9,517	24,241	2,027	6,979
France.....	31,958	118,129	441,519	14,634	81,172
Algeria.....	2,169	9,559	24,878	673	8,339
Tunis.....	1,027	2,861	10,005	441	5,566
French Indo-China.....	1,185	8,738	15,805	324	21,572
French colonies, n. e. s.....	1,948	20,259	26,927	528	41,660
German Empire.....	39,532	148,192	475,551	51,151	90,656
German colonies.....	2,856	5,257	6,570	206	
Greece.....	1,396	5,675	10,487	1,342	
Crete.....		319	4,319	30	
Haiti.....	140	124	124	88	
India, British.....	33,484	78,862	311,034	19,855	155,731
Italy.....	11,105	34,504	720,980	11,137	44,168
Japan.....	5,985	24,945	110,900	7,889	59,451
Formosa.....	302	613	2,213	140	7,746
Chosen.....	836	3,743	9,373	485	19,261
Luxemburg.....	326	441	1,356	134	709
Mexico.....	16,103	22,452	46,437	2,897	51,679
Montenegro.....	11		528	21	
Netherlands.....	2,023	4,808	23,762	1,525	10,032
Dutch East Indies.....	1,673	10,168	15,884	1,758	3,002,074
Dutch possessions in America.....	117			17	
Norway.....	1,921	7,222	13,993	3,594	47,310
Paraguay.....	232	2,485	4,248	385	
Persia.....	34	6,312	10,754	173	10,031
Peru.....	1,719	9,321	34,589	750	17,984
Portugal.....	1,854	5,556	12,604	4,081	19,631
Portuguese colonies.....	1,069	6,657	8,018	843	59,799
Roumania.....	2,338	5,177	14,996	3,039	65,873
Russia.....	46,586	134,054	471,067	16,991	217,984
Finland.....	2,338	(10)	(10)	2,213	
Servia.....	912	2,736	5,192	1,507	2,121
Siam.....	702	4,527	6,604	243	4,954
Spain.....	9,538	26,679	58,095	5,991	36,590
Sweden.....	8,868	6,331	20,175	4,159	42,377
Switzerland.....	3,176	2,191	16,486	4,334	7,965
Turkey.....	4,264	21,154	37,644	814	24,072
United of South Africa.....	8,393	15,236	56,860	2,654	8,499
United Kingdom.....	23,441	75,042	2,661,378	24,497	
British colonies, n. e. s.....	8,424	30,165	35,138	2,392	
United States ¹	251,984	238,033	1,562,497	56,810	435,598
Philippine Islands ²	708	4,615	7,420	589	
Porto Rico ³	340	590	1,400	185	14
Uruguay.....	1,639		5,344	959	24,448
Venezuela.....	634	4,902	4,902	284	
Total.....	684,186	1,462,380	7,773,680	318,493	5,351,257

¹ Not included in grand totals. ² From United States returns. ³ Total for chartered companies only. ⁴ Incomplete data.
⁵ Includes 4,930 miles of line and 9,896 miles of wire in the Soudan. ⁶ Includes 67 miles in Libia and 75 miles in Erythraea.
⁷ Includes 1,779 miles of line and 2,262 miles of wire in Erythraea and Libia. ⁸ Federal telegraphs only.
⁹ Includes police, railway, and private lines. ¹⁰ Included with Russia. ¹¹ Includes telephones.
¹² Exclusive of railway mileage in Alaska and Hawaii. ¹³ Data for the Western Union Telegraph Co. only.
¹⁴ Included with the United States.

SEVEN WONDERS OF THE WORLD

According to the works of Philo of Byzantium

The Pyramids of Egypt.—The only one of the Seven Wonders of the World still standing is the Pyramids of Egypt. It is estimated that it took 100,000 men 30 years to build that wonder of Egypt, the Gizeh group. The great pyramid is 481½ feet high and each side at base is 755½ feet wide. All of these pyramids were undoubtedly built for tombs. They are remarkable for the manner in which they are hermetically sealed. The date of these pyramids is variously fixed as between 2450 and 4235 B.C.

The Hanging Gardens of Semiramis at Babylon.—These gardens were in existence a number of centuries before the birth of Christ. The gardens are supposed to have occupied a square with an area of nearly four acres. They rose in terraces being supported by pillars across which were placed stones, covered with reeds and bitumen and again with bricks united by cement. Above these were sheets of lead to prevent the water from trickling through.

The Colossus of Rhodes.—Probably greatest statue ever erected in the world. It was set up in honor of the Sun by Charles of Lindus in 290 or 288 B. C. It was thrown down by an earthquake after being in position for a period limited to fifty years. The figure is said to have stood upon two capes, a leg being extended on each side of the harbor, so that a vessel under full sail could pass between. Its height was 70 cubits.

The Mausoleum at Halicarnassus.—Erected for King Mausolus of Caria by his disconsolate Queen Artemesia in 353 B. C. It represented the classic period of Greece. In size, in the beauty of its proportions and in the magnificence of its

finishings, no such receptacle for the dead ever existed before or since. It was described by Pliny as late as the twelfth century and is believed to have been destroyed by an earthquake.

The Statue of Zeus at Olympia.—Zeus was the greatest of the national deities of Greece, to honor whom the Greeks erected the marvelous statue of Zeus at Olympia. So well was this work done and so marvelous in proportions and in magnificence, that when it was completed it took its place among the seven wonders of the world.

The Pharos of Alexandria.—Pharo and faro are the French and Italian names for lighthouse. This lighthouse was placed on the island of Pharos at the entrance to the port of Alexandria. It was not only unique and a marvel in its aspect, but, unlike the other seven wonders, it served a useful purpose. The idea of a lighthouse was no doubt suggested to the monarch as a development of the beacon fires which in remoter antiquity were often kept burning at the entrance to a harbor to guide belated ships.

The Temple of Diana at Ephesus.—This wonderful building, the grandest temple structure the Greeks ever reared and which was considered one of the wonders of the world, was designed by Deiocrates. It was 425 feet long, 220 feet wide and the number of the columns 128, of which 36 were carved. The height of the columns was 60 feet. It supplanted a temple bearing the same name, which was set on fire in the year 356 B.C. by one Horostratus, who had failed to make himself famous in any other way. The last temple was four times the size of the Parthenon, and ampler than the Milan Cathedral or St. Paul's, London.

SEVEN MODERN WONDERS OF THE WORLD

Antiseptics and Antitoxins.—The discovery of the germ theory and the use of antitoxins and antiseptics has undoubtedly saved more lives than any other one agent in the world. New antitoxins are being discovered every year. Think how the knowledge of germs has aided humanity in such diseases as smallpox, diphtheria, yellow fever and the latest—typhoid fever.

Lister, pondering over Pasteur's discovery, conceived the idea that if microbes could be killed or excluded from the field of operation, the mortality and suffering from surgery might be reduced. This was antiseptic introduced to surgery. Hospital gangrene, erysipelas and blood poisoning, once the scourges of hospitals and army camps, are now almost unknown after operation.

Wireless.—Wireless telegraphy under the masterful hand of Guglielmo Marconi sprang into commercial success in a remarkably short space of time.

The waves or vibrations that make wireless telegraphy possible are in many respects similar to those of light. They travel at the same speed of 186,330 miles a second. There are several ways of producing these waves, but the one in common use is called the spark method. Briefly, it is this: An induction coil or high tension transformer is connected to an electric current supply so as to produce a spark across an air space. By opening or closing an ordinary telegraph key the operator causes a spark of longer or shorter duration to jump across the air space. This spark produces the vibrations by virtue of its oscillatory character.

People a century ago would have believed it incredible that a message could be sent from the shore to the middle of the ocean in less than a minute.

Telephone.—The telephone is one of the oldest of our modern wonders. The period that marks its incipency was the years 1874 to 1877. Alexander Graham Bell was the inventor.

During the summer of 1874, while on a visit to his father's home the thought of the membrane telephone was elaborated. It was a theoretical conception of the magneto telephone—that the vibrations of the voice might create electrical impulses like the aerial impulses and produce an audible result at the other end.

On his return to Boston, in October, and all through the winter and spring of 1875, instead of making the apparatus and experimenting, he was attempting to devise methods of increasing the strength of these electrical undulations. Then came the discovery that a magneto-electric current would produce by itself sonorous effects at a receiving station. In a moment all the difficulties in the way of a practical solution

of the telephone disappeared. What would New York City with its 500,000 telephones do to-day without them.

The Internal Combustion Engine.—The perfection of the internal combustion engine has been responsible for the development of the automobile, motor boat and aeroplane. It is safe to say that the aeroplane would be a practical failure without such an engine. The Wright Brothers' first flying machine was driven by gasoline explosion, although Langley launched a steam monoplane model in 1896 which travelled over 3,000 feet.

Roentgen Rays.—The discovery of the X-rays resulted from the accidental observation made by Prof. Wilhelm Conrad Roentgen of the University of Wurzburg that certain crystals in the vicinity of a vacuum tube with which he was experimenting glowed with a phosphorescent light, even when opaque substances were interposed between the tube and the shining crystals. Further experimenting showed that the tube was giving off a radiation, which, though quite invisible to the eye had the power of affecting photographic plates, and passed through flesh and bone, metal plates, blocks of wood, and practically all opaque substances, almost as readily as light passes through a sheet of glass.

This remarkable discovery has been a wonderful aid to surgeons and physicians in locating trouble in a man's anatomy.

Modern Chemistry.—Chemistry is one of the oldest arts known to civilization, yet it is only in recent times that knowledge of the combinations of molecules and atoms has been of great practical benefit to the human race. One of the greatest modern benefits of analytical chemistry has been the analysis of the soil and the consequent knowledge of just what to apply to it to make it the most productive. Scientific farming is truly a modern wonder. Synthetic chemistry also deserves to be mentioned because it has created in the laboratories, without plants or animals substances which have been very valuable in the arts and sciences.

The Spectroscope.—The spectroscope has had little to do with our practical lines, but it has been of immense value to the scientist. Newton was the first to discover that a glass prism will separate a beam of light into its component colors—the colors of the rainbow. Fraunhofer a century and a half later discovered dark parallel bands varying in width running across the colors of the solar spectrum. By noting the spectrum made by the light rays of different elements it has been possible to tell what the stars and planets are made of. The spectroscope is also used to a great extent in analyzing chemical substances. It has been the means of discovering many new elements.

PRINCIPAL COUNTRIES OF THE WORLD

COUNTRY	FORM OF GOVERNMENT	CAPITAL	AREA Sq. Ml.	LATEST POPULATION
Abyssinia	Absolute Monarchy	Addis Abeba	350,000	8,000,000
Afghanistan	Absolute Monarchy	Kabul	250,000	5,900,000
Albania	Limited Monarchy	Skutari	11,317	1,000,000
Andorra	Republic	Andorra	175	5,231
Argentina	Republic	Buenos Aires	1,153,119	7,500,000
Australia	Commonwealth	Canberra	3,063,041	5,202,652
Austria-Hungary	Limited Monarchy	Vienna, Budapest	261,107	51,059,810
Belgium	Limited Monarchy	Brussels	11,373	7,423,784
Belgian Congo		Roma	909,654	15,000,000
Bhutan	Limited Monarchy	Punakha and Tasichozong*	20,000	250,000
Bolivia	Republic	Sucre; La Paz†	708,195	2,520,540
Brazil	Republic	Rio de Janeiro	3,291,416	24,308,219
British Empire	Limited Monarchy	London	13,123,712	434,686,650
Bulgaria	Limited Monarchy	Sofia	43,310	4,752,997
Canada	Confederation	Ottawa	3,729,665	8,075,000
Chile	Republic	Santiago	292,420	3,596,541
China	Republic	Peking	4,277,170	439,214,000
Colombia	Republic	Bogota	438,436	5,472,604
Costa Rica	Republic	San Jose	23,000	420,179
Cuba	Republic	Havana	44,164	2,382,990
Denmark	Limited Monarchy	Copenhagen	15,582	2,775,076
Denmark, Colonies of			87,174	143,143
Dominican Republic	Republic	Santo Domingo	19,325	708,000
Ecuador	Republic	Quito	116,000	1,500,000
Egypt	Limited Monarchy	Cairo	360,000	11,287,359
France	Republic	Paris	207,054	39,601,509
France, Colonies of			4,538,500	40,986,000
Germany	Limited Monarchy	Berlin	208,780	67,812,000
Germany, Colonies of			1,027,820	12,065,992
Great Britain and Ireland	Limited Monarchy	London	121,331	45,211,615
England		London	58,340	36,070,492
Ireland		Dublin	32,586	4,390,219
Scotland		Edinburgh	30,495	4,760,904
Greece	Limited Monarchy	Athens	44,778	4,821,832
Guatemala	Republic	Guatemala City	48,290	2,119,165
Haiti	Republic	Port au Prince	10,204	2,500,000
Honduras	Republic	Tegucigalpa	46,250	562,000
India	Limited Monarchy	Delhi	1,802,629	315,156,396
Italy	Limited Monarchy	Rome	110,632	36,120,118
Italy, Colonies of			590,865	1,203,924
Japan	Limited Monarchy	Tokyo	147,699	54,282,898
Japan, Dependencies of			97,942	21,017,829
Liberia	Republic	Monrovia	40,000	2,000,000
Liechtenstein	Monarchy	Vaduz	65	10,716
Luxemburg	Limited Monarchy	Luxemburg	998	259,891
Mexico	Republic	Mexico City	767,097	15,501,680
Monaco	Limited Monarchy	Monaco	8	22,956
Montenegro	Limited Monarchy	Cetinje	5,600	516,000
Morocco	Limited Monarchy	Fes	225,000	5,000,000
Nepal	Absolute Monarchy	Khatmandu	54,000	5,000,000
Netherlands	Limited Monarchy	The Hague	12,582	6,339,705
Netherlands, Colonies of			832,473	38,000,000
New Zealand	Commonwealth	Wellington	104,751	1,162,134
Nicaragua	Republic	Managua	49,532	703,540
Norway	Limited Monarchy	Christiania	124,643	2,391,782
Oman	Absolute Monarchy	Mascat	82,000	500,000
Panama	Republic	Panama	32,380	336,742
Paraguay	Republic	Asuncion	196,000	800,000
Persia	Limited Monarchy	Teheran	630,000	9,500,000
Peru	Republic	Lima	683,321	5,800,000
Portugal	Republic	Lisbon	35,490	5,957,895
Portugal, Colonies of			802,952	9,245,000
Roumania	Limited Monarchy	Bukharest	53,489	7,508,000
Russia	Absolute Monarchy	Petrograd	8,417,118	178,378,800
Russia, Dependencies of			107,000	1,050,000
Salvador	Republic	San Salvador	7,225	1,225,835
San Marino	Republic	San Marino	38	11,513
Serbia	Limited Monarchy	Belgrade	33,891	4,547,990
Siam	Absolute Monarchy	Bangkok	195,000	8,149,487
Spain	Limited Monarchy	Madrid	194,783	20,355,983
Spain, Colonies of			85,814	236,000
Sweden	Limited Monarchy	Stockholm	172,963	5,680,500
Switzerland	Republic	Bern	15,976	3,877,200
Turkey & tributary states	Limited Monarchy	Constantinople	710,000	21,275,000
Union of South Africa	Confederation	Pretoria, Cape Town	473,700	5,973,394
United States, Continental	Republic	Washington	3,026,789	100,264,485
U. S. Dependencies of			716,529	10,229,721
Uruguay	Republic	Montevideo	72,210	1,315,000
Venezuela	Republic	Caracas	393,976	2,764,241

‡ Winter and Summer Capital. † Seat of Government.

PRINCIPAL CITIES OF THE WORLD

Exclusive of the United States and Canada

Aachen (Aix-la-Chapelle), Germany	156,143	Ahmadpur, India	11,000	Alfonsine, Italy, (com.)	10,864	Ankleshwar, India	10,225
Aalborg, Denmark	33,449	Ahbraura, India	12,000	Alfortville, France	17,445	Annaberg, Germany	17,028
Aalen, Germany	11,347	Ahuachapan, Salvador	22,392	Alfreton, England	19,046	Annanvale, N. S. W., Aus-	11,250
Aalesund, Norway	13,836	Aidin, Turkey in Asia	35,000	Algieras, Spain	13,350	Annecy, France	14,351
Aalst (Alost), Belgium	35,125	Aigun, Manchuria	15,000	Alghero, Italy, (com.)	11,265	Annen, Germany	13,690
Aarhus, Denmark	61,755	Aikawa, Japan	12,500	Algiers, Algeria	172,397	Anfield Plain, England	16,552
Aarlen (Arlon), Belgium	12,012	Aintab, Turkey in Asia	74,000	Aliaga, Philippine Islands	11,950	Annonay, France	17,300
Abbeokuta, Nigeria	51,255	Airdrie, Scotland	24,388	Alicante, Spain	55,300	Ans, Belgium	10,482
Abbeville, France	20,704	Aivalli, Turkey in Asia	25,000	Aligarh (Koili), India	64,825	Ansbach, Germany	19,995
Abbiategrosso, Italy, (com.)	12,666	Aix, France	29,829	Alkmaar, Netherlands, (com.)	21,084	Antananarivo (Tanana-	70,000
Abbotabad, India	10,175	Aix-la-Chapelle (Aachen), Germany	156,143	Allada, Dohomey	10,000	rivo, Madagascar*	32,215
Aberavon, Wales	10,505	Ajaccio, France	22,364	Allahabad, India	171,697	Antequera, Spain	11,753
Abercarn, England	16,445	Ajmere (Ajmir), India	86,222	Allanmyo, India	10,207	Antibes, France	30,000
Aberdare, Wales	50,830	Ajodhya, India	21,584	Allenstein, Germany	33,077	Antioch, Turkey in Asia	10,000
Aberdeen, Scotland	163,084	Alkalkot, India	10,000	Alloa, Scotland	11,893	Antioquia, Colombia	34,000
Abersychan, England	24,656	Akamagaseki (Shimono-	58,290	Almansa (in Albacete), Spain	11,200	Antofagasta, Chile	12,000
Aberthillery, England	35,415	seki), Japan	25,951	Almelo (Ambt-Almelo), Netherlands, (com.)	10,465	Antung, Manchuria	301,766
Abo, Russia	50,994	Akashi, Japan	16,116	Almendralejo, Spain	12,587	Antwerp, Belgium	14,387
Abomey, Dahomey	10,800	Akermann, Russia	39,791	Almeria, Spain	48,407	Amorri, (Awomori) Japan	47,206
Abony, Hungary	13,604	Akhaltsik, Russia	16,116	Almódovar, Spain	12,525	Aonla, India	14,383
Abu Menaah Bahri, Egypt	10,968	Akhissar (in Smyrna), Tur-	11,000	Alguinsán, Philippine Is-	14,013	Apálit, Philippine Islands	12,206
Abu Menaah Qibli, Egypt	10,968	key in Asia	33,728	Almódovar, Spain	12,525	Aparrí, Philippine Islands	18,252
Abu Tig, Egypt	12,024	Akhmim, Egypt	36,294	Alor, Spain	10,326	Apeldoorn, Netherlands	35,626
Accra (Akkrá), Gold Coast	19,588	Akita, Japan	12,000	Alor Star, Feudatory Ma-	12,000	Apelberck, Germany	10,396
Accrington, England	45,029	Akita (Acre), Turkey in	19,588	lay States	35,125	Aplerda, Germany	22,610
Accra, Italy	16,939	Asia	10,000	Alost (Aalst), Belgium	25,534	Aquila degli Abruzzi, Italy, (com.)	21,923
Achin, Sumatra	35,100	Akkra (Accra), Gold Coast,	10,000	Altamura, Italy, (com.)	14,580	Aquin, Haiti	30,000
Achtkarspen, Nether-	12,839	Africa	19,588	Altena, Germany	39,976	Araçajú, Brazil	20,000
lands, (com.)	12,839	Akolinsk, Russia in	11,000	Altengessen, Germany	40,644	Aracati, Brazil	27,126
Acireale, Italy	36,147	Asia	11,000	Altona, Germany	172,628	Arad, Hungary	63,166
Acquaviva (Celle Fonti), Italy	10,935	Akola, India	29,289	Altrincham, England	17,813	Arakan, India, (com.)	15,514
Acqui, Italy	15,232	Akoti, India	18,252	Altwasser, Germany	17,324	Arakan, India	20,682
Acre (Akka), Turkey in	12,000	Aksu, China	20,000	Alwar, India	56,771	Aranjuez, Spain	12,670
Asia	12,666	Akyab, India	15,326	Amagasaki, Japan	11,000	Arasgru, Turkey	20,000
Acri, Italy	12,666	Alagoas, Brazil	50,000	Amalapuram, India	12,000	Arappukutai, India	12,673
Acton, England	57,497	Alagoinhas, Brazil	29,831	Amalapuram, India	11,000	Arayat, Philippine Islands	12,904
Ada Bazar, Turkey in	15,000	Alais, France	10,338	Amalapuram, India	11,000	Arbon, Switzerland	10,299
Asia	24,000	Alaminos, Philippine Is-	10,338	Amalapuram, India	11,000	Arbroath, Scotland	20,648
Adafudia, Dahomey	15,000	lands	10,338	Amalapuram, India	11,000	Arcevia, Italy	11,742
Adalia (Attalia), Turkey	30,000	Alasher (Ala Sher), Turkey	21,000	Amalapuram, India	11,000	Archahie (Archahaye),	16,000
in Asia	30,000	in Asia	21,000	Amalapuram, India	11,000	Haiti	37,990
Adana, Turkey in Asia	60,000	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Archangel, Russia	10,546
Addis Ababa, Abyssinia*	50,000	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole (Arcole), Italy, (com.)	10,546
Adeisi, Egypt	10,026	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546
Adeiaide, Australia	42,294	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546
Adelaide, Australia (with	19,132	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546
suburbs)	46,165	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546
Aden, Arabia	30,096	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546
Aderno, Italy	11,500	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546
Adirampatnam, India	10,645	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546
Aldershof, Germany	30,416	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546
Adoni, India	11,188	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546
Adra, Spain	14,000	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546
Adramyti (Edremid), Tur-	17,562	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546
key in Asia	83,000	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546
Adria, Italy	16,370	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546
Adrianople, Turkey	45,000	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546
Affori, Italy, (com.)	22,822	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546
Afium Karahissar, Turkey	14,052	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546
in Asia	11,600	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546
Afragola, Italy, (com.)	10,200	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546
Agamain, Egypt	23,141	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546
Agar, India	21,877	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546
Agartala, India	10,653	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546
Agen, France	185,449	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546
Agira, Italy, (com.)	79,038	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546
Agó, Philippine Islands	26,423	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546
Agra, India	45,198	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546
Agram (Zágráb), Hungary	13,236	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546
Agua, Colombia	15,950	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546
Agua, Colombia	12,000	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546
Agua, Colombia	10,762	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546
Agua, Colombia	215,835	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546
Agua, Colombia	42,500	Alatichata, Turkey	14,000	Amalapuram, India	11,000	Arcole, Italy, (com.)	10,546

Aschaffenburg, Germany	29,892	Azuaga, Spain	14,192	Banbury, England	13,460	Battonya, Hungary	12,872
Aschersleben, Germany	28,964	Bacarra, Philippine Is-	14,616	Banda, India	22,565	Batum, Russia	40,000
Ascoli Piceno, Italy, (com.)	30,618	lands		Bandra, India	22,075	Bauan, Philippine Islands	39,904
Ashfield, N.S.W., Australia	12,096	Baccaya, Philippine Is-	14,214	Bangalore, (Bangalur) In-	189,485	Báuang, Philippine Islands	10,032
Ashford, England	13,668	lands		dia	12,336	Bautzen, Germany	32,954
Asihaga, Japan	38,908	Bachmut (Bakhmut), Rus-	33,240	Bangkok, Siam*	628,675	Baxar (Buxar), India	13,745
Ashington, England	24,583	sia		Bangor, Wales	11,236	Bayambang, Philippine Is-	11,098
Ashio, Japan	28,618	Bacolod, Philippine Is-	11,960	Bangued, Philippine Is-	12,956	lands	
Ashmun, Egypt	13,900	lands		Banjaluca (Bania Louka),	14,800	Bayonne, France	26,480
Ashta, India	12,409	Bacolor, Philippine Is-	13,493	lands		Bayreuth (Baireuth), Ger-	34,571
Ashton-in-Makerfield,	21,543	Bacón, Philippine Islands	10,925	Austria-Hungary	50,000	many	12,770
England	45,172	Bacoor, Philippine Islands	12,029	Banjerassin, South and	20,737	Baza, Spain	18,098
Ashton-under-Lyne, Eng-		Bács-Topolya, Hungary	22,318	East Borneo*	14,291	Bazardjik (Dobritsch), Bul-	18,098
land		Bacup, England	11,319	Bankura, India	10,024	garia	
Asingán, Philippine Is-	12,911	lands		Bannu, India	24,814	Beaconsfield, O.F.S., Union	20,364
lands	57,507	Badagara, India	35,039	Bandsih, India	13,324	of South Africa	13,540
Askhabad, Russia in Asia	00,000	Badajoz, Spain	22,066	Bant, Germany	25,432	Beaune, France	20,248
Asmara, Erythrea*	42,583	Badalona, Spain	14,083	Bantayán, Philippine Is-	13,324	Beauvais, France	10,156
Asnières, France	12,926	Baden, Austria	10,935	lands	31,617	Beba, Egypt	31,622
Assen, Netherlands, (com.)	18,482	Baden, Germany	10,833	Bar, Russia	598,650	Beckenham, England	18,865
Assisi, Italy, (com.)	39,442	Badén, Philippine Islands	14,539	Baranagar, India	13,000	Becse (Old Becse), Hun-	18,865
Assiut (Siut), Egypt	12,618	Badnera, India	14,379	Barbarino di Mugello,	13,208	gary	39,183
Assouan (Aswan), Egypt	39,693	Badoc, Philippine Islands	18,071	Italy, (com.)	10,856	Bedford, England	25,440
Asti, Italy, (com.)	75,029	Badvél, India	19,020	Barcellona Pozzo di Gotto,	10,133	Bedlington, England	22,547
Aston Manor, England	28,000	Baena, Spain	12,564	Italy, (com.)	11,366	Bedwelty, England	11,366
Asstrabad, Persia	150,100	Baegam, Brazil	14,379	Barceloneta Pozzo di Gotto,	55,000	Beeston, England	12,583
Asstrakhan, Russia	12,153	Baikalot, India	30,000	Italy, (com.)	12,164	Begles, France	45,063
Asturias, Philippine Is-	12,618	Bagdad, Turkey in Asia	20,954	Barcloneta, Venezuela	10,054	Behar (Bihar), India	210,000
lands	75,000	Bagé, Brazil	15,669	Bareil (Bareilly), India	10,133	Beirut, Turkey in Asia	10,133
Asuncion, Paraguay*	12,618	Bagheria, Italy, (com.)	10,428	Barfush (Balfrush), Per-	103,670	Békés, Hungary	26,875
Aswan (Assouan), Egypt	11,108	Bagnera, Italy, (com.)	12,851	Barh, India	31,617	Békeš-Csaba (Csaba),	42,599
Ath, Belgium	167,479	Bagnacavallo, Italy, (com.)	21,399	Barhaj, India	18,978	Hungary	250,000
Athens, Greece*	18,982	Bagnara, Italy, (com.)	17,778	Bari del Puglie, Italy,	31,294	Belem (Para), Brazil	385,492
Atherton, England	18,982	Bagni di Lucca, Italy,	11,770	(com.)	17,307	Belfast, Ireland	39,371
Athni, India	11,107	(com.)	17,778	Barletta, Italy, (com.)	44,301	Belfort, France	26,878
Atimonan, Philippine Is-	11,203	Bagni San Giuliano, Italy,	11,770	Barmen, Germany	109,214	Belgam (Belgaum), India	90,895
lands	11,472	(com.)	12,127	Barnes, England	61,330	Belgrade, Serbia*	10,478
Atiquizaya, Salvador	12,600	Bagno a Ripoli, Italy,	18,546	Barnesle, England	10,440	Bellary, British Honduras*	58,247
Atkarsk, Russia	16,561	(com.)	11,070	Barnstaple, England	50,614	Bellinzona, Switzerland	10,466
Atkrai, India	13,175	Bago, Philippine Islands	280,000	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Atsi, Italy, (com.)	24,941	Bahawalpur, India	72,706	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Attala (Adalia), Turkey	30,000	Bahia, Brazil	27,304	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
in Asia	14,419	Bahia Blanca, Argentina	15,997	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Atzacapatzco, Mexico	10,375	Bahraich, India	17,174	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Atzgersdorf, Austria	37,558	Baiaida, Egypt	13,573	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Aubervilliers, France	13,526	Baidyabati, India	25,500	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Auch, France	11,075	Bailleul, France	20,000	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Auchel, France	40,536	Baidur, Turkey in Asia	34,547	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Auckland, New Zealand	102,676	Bainet, Haiti	21,032	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Auckland, New Zealand,	14,776	Baireuth (Bayreuth), Ger-	13,051	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
(with suburbs)	19,363	many	14,000	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Audley, England	12,721	Baja, Hungary	10,167	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Aue, Germany	102,487	Baj-Baj (Budge-Budge),	17,062	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Auerbach (in Saxony),	14,866	India	10,127	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Germany	13,850	Bajistan, Persia	17,062	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Augsburg, Germany	36,837	Bajitpur, Eastern Bengal	33,240	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Augusta, Italy, (com.)	17,772	and Assam, India	10,603	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Augustowo, Russia	10,118	Bakau, Roumania	10,486	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Aurangabad, India	39,301	Bakhmut (Bachmut),	22,800	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Aurillac, France	10,308	Russia	20,880	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Auschwitz, Austria	15,479	Bakhtchisarai, Russia	11,570	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Aussig, Austria	15,000	Baku, Russia	13,267	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Autlán, Mexico	20,931	Balambán, Philippine Is-	10,702	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Autun, France	11,523	lands	10,603	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Aux Cayes, Haiti	24,070	Balaapur, Russia	10,486	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Auxerre, France	24,500	Balashof, Russia	10,486	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Aveiro, Portugal	11,208	Balatore, India	10,486	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Avellino, Italy, (com.)	16,937	Balby with Hexthorpe,	10,486	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Aversa, Italy, (com.)	49,304	England	10,486	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Avezzano, Italy, (com.)	13,224	Bále (Basel), Switzerland	10,486	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Avigliano, Italy, (com.)	12,763	Bálfush (Barfush), Per-	10,486	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Avignon, France	17,300	sia	10,486	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Avila, Spain	47,206	Bálfush (Barfush), Per-	10,486	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Aviles, Spain	15,000	sia	10,486	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Avola, Italy, (com.)	11,048	Bálfush (Barfush), Per-	10,486	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Awomori (Aomor), Japan	32,985	sia	10,486	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
AYacucho, Peru	50,000	Bálfush (Barfush), Per-	10,486	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Aylesbury, England	18,835	sia	10,486	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Ayr, Scotland	11,000	Bálfush (Barfush), Per-	10,486	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Áyuthia, Siam	13,385	sia	10,486	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Azamgarh, India	30,523	Bálfush (Barfush), Per-	10,486	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Azemour, Morocco		sia	10,486	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Azimingán, India		Bálfush (Barfush), Per-	10,486	Barasle, England	14,485	Belluno, Italy, (com.)	25,000
Azof, Russia		sia	10,486	Barasle, England	14,485	Belluno, Italy, (com.)	25,000

Bergisch-Gladbach, Germany	15,207	Bingerville, French Ivory Coast*	00,000	Borgo San Lorenzo, Italy, (com.)	15,063	Broussa (Brusa), Turkey in Asia	90,000
Berhanpur, India	32,252	Binh, England	18,759	Borisoglebsk, Russia	24,700	Brownhills, England	16,852
Beri, India	11,603	Binh Thuan, French Indo-China	20,000	Borissoff, Russia	18,103	Brozzi, Italy, (com.)	11,925
Berislav, Russia	11,093	Binnamale, Philippine Islands	16,439	Borisovka, Russia	16,288	Bray, France	16,544
Berlat (Berlad), Roumania	25,381	Birjand, Persia	25,000	Borongan, Philippine Islands	13,667	Bruchsal, Germany	15,391
Berlin, Germany*	2,071,257	Birkdale, England	18,000	Borovitchi, Russia	10,300	Bruges, Belgium	53,285
Berlin, Germany*, (with suburbs)	3,709,504	Birkhead, England	130,794	Borowstounness, (Borow), Scotland	10,866	Brünig, Austria	125,377
Bern (Berne), Switzerland*	85,651	Birmingham, England	525,833	Borsad, India	13,001	Brunswick, Australia	32,201
Bernburg, Germany	33,724	Bismeglie, Italy, (com.)	33,929	Boryslaw, Austria	12,757	Brunswick (Braunschweig), Germany	143,552
Berwick upon Tweed, England	13,075	Bishnupur, India	19,090	Boscarea, Italy, (com.)	10,189	Brusa (Broussa), Turkey in Asia	177,000
Besancon, France	57,978	Bishop Auckland, England	13,834	Boscotrecase, Italy, (com.)	11,307	Brussels, Belgium*	90,078
Bethlehem, Turkey in Asia	11,000	Biskupitz, Germany	13,964	Bosna-Serai (Sarajevo), Bosnia-Hungary	51,919	Brussels (with suburbs), Belgium*	720,347
Béthune, France	13,607	Bismarckhütte, Germany	22,687	Boston, England	16,673	Brix, Austria	25,692
Bétina, India	24,696	Bitistrz, Hungary	13,236	Botany, Australia	10,228	Brzcan, Austria	12,700
Beuthen (in Prussian Silesia), Germany	67,718	Bitlis, Turkey in Asia	40,000	Botoshani, (Botuchany), Roumania	32,813	Bucaramanga, Colombia	20,000
Beveren, Belgium	11,020	Bitonto, Italy, (com.)	32,823	Bottrorp, Germany	47,162	Buckhaven, Scotland	15,149
Beverley, England	13,654	Bitterfeld, Germany	14,617	Botuchany (Botoshani), Roumania	32,813	Budacz, Austria	14,300
Bexhill, England	15,330	Bizerta, Tunis	29,000	Botzen, Austria	24,126	Budapest, Hungary*	880,371
Bexley, England	15,895	Bjelgrad (Belgrad), Russia	12,388	Boulder, Australia	12,833	Budaun, India	39,031
Béziers, France	51,042	Bjorneborg, Russia	18,000	Boulogne (in Pas-de-Calais), France	53,128	Budge-Budge (Baj-Baj), India	13,051
Bezwada, India	24,224	Blackburn, England	133,052	Boulogne (in Seine), France	57,027	Budrio, Italy, (com.)	17,550
Bhadrak, India	18,518	Blackpool, England	58,371	Bourg, France	20,045	Budweis, Austria	45,300
Bhadrashwar, India	15,150	Blagenavon, England	12,010	Bourgas (Burgas), Bulgaria	14,897	Buea, Kamerun*	61,510
Bhagalpur, India	75,760	Blauenovestchenk, Russia in Asia	70,160	Bourges, France	45,735	Buenos Aires, Argentina*	1,560,163
Bhamo, India	10,734	Blankenburg (in Brunswick), Germany	11,487	Bourges, France	45,735	Buer, Germany	61,510
Bharadara, India	14,023	Blaydon, England	31,139	Bournemouth, England	78,674	Buga, Colombia	12,400
Bharatpur, India	43,601	Blidah, Algeria	35,461	Boussu, Belgium	11,573	Bugaon, Philippine Islands	11,101
Bharuch (Broach), India	42,896	Blomfontein, O. F. S., Union of South Africa	33,882	Bra, Italy, (com.)	16,957	Bugurulan, Russia	21,000
Bhatnaga, Nepal	30,000	Blois, France	23,972	Brackwede, Germany	10,550	Buitenzorg, Java	33,401
Bhatinda, India	13,185	Blumenthal (in Hanover), Germany	10,874	Bradford, England	288,458	Bujalance, Spain	10,750
Bhatpara, India	21,540	Blyth, England	28,280	Braga, Portugal	30,436	Bukarest, Roumania*	338,109
Bhaunagar, India	56,442	Boac, Philippine Islands	15,823	Braganca, Brazil	15,000	Bulacan, Philippine Islands	11,589
Bhera, India	18,680	Bobbili, India	17,387	Brahmanbaria, India	19,915	Bulan, Philippine Islands	13,431
Bhilwara, India	10,346	Bobrinetz, Russia	10,680	Bralia, Roumania	64,730	Bulandshahr, India	18,959
Bhir, India	17,671	Bobruisk, Russia	40,842	Brandenburg, Germany	53,595	Bulhar, Somaliland	12,500
Bhiwandi, India	10,354	Bochnia, Austria	12,000	Brandon and Byshotles, England	17,667	Bulsar, India	12,857
Bhopal, India	77,023	Bocholt, Germany	26,404	Brasso (Kronstadt), Hungary	68,300	Bundi, India	19,313
Bhuj, India	26,362	Bochum, Germany	136,931	Braunsberg, Germany	13,601	Bunzlau, Germany	16,125
Bhusawal, India	16,363	Böckingen, Germany	10,441	Braunschweig (Brunswick), Germany	143,552	Burauen, Philippine Islands	18,197
Biala, Egypt	12,376	Bodenbach, Austria	13,412	Brazzaville, French Equatorial Africa*	00,000	Burdur, Turkey in Asia	17,290
Bialystok (Byelstok, Bielostok), Russia	86,200	Bodinyakkanur, India	22,209	Breda, Netherlands, (com.)	27,389	Burdwan, India	35,022
Biancavilla, Italy, (com.)	15,743	Boaduno (Petuna), Manchuria	29,500	Bremen, Germany	247,437	Burg (on the Ihle), Germany	24,074
Biarritz, France	15,093	Bofu, Japan	23,916	Bremerhaven, Germany	24,165	Burgas (Bourgas), Bulgaria	14,897
Birkendorf, Germany	11,863	Bogó, Philippine Islands	14,915	Brentford, England	16,571	Burgos, Spain	31,489
Bida, Nigeria	90,000	Bogodukhoff, Russia	11,525	Brescia, Italy, (com.)	83,339	Burhanpur, India	33,341
Bidar, India	11,367	Bogorodsk (in Moscow), Russia	14,200	Breslau, Germany	512,105	Burnley, England	106,322
Bieberich, Germany	21,199	Bogota, Colombia*	121,257	Bressou, Belgium	11,959	Burlesan, Spain	12,962
Biel (Bienne), Switzerland	23,679	Bogschütz, Germany	22,922	Brest, France	50,540	Burlesan, Spain	38,766
Bielef, Russia	10,700	Böhmisch-Leipa, Austria	12,277	Brest-Litovsk, Russia	57,100	Burton-upon-Trent, England	48,266
Bielefeld, Germany	78,380	Bois-Colombes, France	14,695	Brinsak, Russia	30,460	Bury, England	58,648
Bielgorod, Russia	28,100	Bokhara, Russia in Asia	70,000	Bridgetown, Barbados*	16,648	Bury St. Edmunds, England	16,785
Bielitz, Austria	18,579	Boksburg, Transvaal, Union of South Africa	11,596	Bridgwater, England	16,802	Bush and Ezbet el Rahban, Egypt	12,754
Biella, Italy, (com.)	22,519	Bobec, France	11,588	Bridlington, England	14,334	Bushire, Persia	20,000
Bielopol, Russia	15,283	Boichof, Russia	23,300	Brieg, Germany	29,035	Bussum, Netherlands, (com.)	12,808
Bielostok (Bialystok, Byelostok), Russia	86,200	Bolgrad (Belgrad), Russia	12,388	Brierley Hill, England	12,263	Busto Arsizio, Italy, (com.)	25,629
Bielschowitz, Germany	12,524	Bologna, Italy, (com.)	172,628	Brighouse, England	20,843	Buzuluk (Buzuluk), Russia	16,000
Bieltzi, Russia	19,600	Bolover, England	11,214	Brighton, Australia	11,096	Buturlinovka, Russia	38,100
Bienne (Biel), Switzerland	23,679	Bolton, England	180,851	Brighton, England	131,237	Buxar (Baxar), India	13,945
Bihar, Turkey in Asia	12,000	Boma, Belgian Congo*	3,500	Brindaban, India	22,787	Buzeu, Roumania	28,781
Bihar (Behar), India	45,063	Bombay, India	979,445	Brindisi, Italy, (com.)	28,186	Buzuluk (Busuluk), Russia	16,000
Billbeis, Egypt	13,485	Bona, Algeria	42,039	Brisbane, Australia	39,047	Buzuluk (Busuluk), Russia	16,000
Biljapur, India	23,841	Bondeno, Italy, (com.)	18,909	Brisghella, Italy, (com.)	13,774	Byelaya Tserkov, Russia	60,550
Bijnor (Bijnaur), India	17,583	Bo'ness (Borrowstounness), Scotland	10,866	Bristol, England	357,048	Byelystok (Bialystok, Bielostok), Russia	86,200
Bikaner, India	53,075	Bonn, Germany	87,978	Britz (near Berlin), Germany	11,502	Cabacanale, Philippine Islands	12,671
Bilaspur, India	18,937	Bonn, Belgium	17,481	Brive, France	20,636	Cabatian, Philippine Islands	16,497
Bilbao, Spain	93,536	Boonle, England	69,876	Broach (Baroach), India	42,896	Cabra, Spain	13,127
Bilecik, Turkey in Asia	11,000	Boras, Sweden	22,411	Brod, Hungary	10,200	Caceres, Spain	18,617
Bilgram, India	11,190	Borbeck, Germany	71,106	Brody, Austria	18,150		
Bilston, England	25,681	Bordeaux, France	261,678	Broken Hill, Australia	30,953		
Bimlipatam, India	10,212	Borgerhout, Belgium	49,333	Bromberg, Germany	57,696		
Binalonan, Philippine Islands	14,603	Borgomanero, Italy, (com.)	10,586	Bromley, England	33,646		
Binche, Belgium	11,690	Borgo San Donnino, Italy, (com.)	13,472	Bronte, Italy, (com.)	17,997		
Bin-Dinh (Binh - Dinh), French Indo-China	75,000			Broughty Ferry, Scotland	11,059		

Cachoeira, Brazil	45,200	Cape Haitien, Haiti	30,000	Castro del Rio, Spain	11,821	Chefu (Chi-fu), China	54,000
Cadereyta, Mexico	12,009	Cape Town, C.G.H. Union of South Africa*	67,170	Castrogiovanni, Italy, (com.)	28,312	Cheliabinsk, Russia	70,500
Cadiz, Philippine Islands	16,420	Cape Town, Union of South Africa*, with suburbs	149,461	Castrop, Germany	18,516	Chelm (Kholm), Russia	17,000
Cadiz, Spain	69,000	Cápiz, Philippine Islands	18,525	Castroreale, Italy, (com.)	10,147	Chelmsford, England	18,008
Caen, France	46,934	Capodistria, Austria	11,800	Castro Urdiales, Spain	14,301	Cheltenham, England	48,942
Caerphilly, Wales	32,844	Capua, Italy, (com.)	13,140	Casta, Austria	18,000	Chemnitz, Germany	287,807
Cagli, Italy, (com.)	11,679	Caracas, Venezuela*	73,000	Catania, Italy, (com.)	210,703	Chempulpo (Tchémpoulo), Chosen (Korea)	25,167
Cagliari, Italy, (com.)	61,845	Caracapa, Paraguay	15,000	Catanzaro, Italy, (com.)	34,343	Cheng-te (Jehol), China	260,000
Caguas, Porto Rico	10,354	Caravaca, Spain	15,846	Caterham, England	10,841	Cheng-tu (Ching-tu), China	350,000
Cahors, France	13,202	Carballo, Spain	13,200	Caudray, France	12,888	Cherbourg, France	43,731
Caiffa (Haifa), Turkey in Asia	25,000	Carcagente, Spain	12,350	Cava de' Tirreni, Italy, (com.)	24,108	Cheribon, Java	12,000
Cairo, Egypt*	654,476	Carcar, Philippine Islands	31,895	Cavazere, Italy, (com.)	18,641	Cherkasy, Russia	39,649
Caivano, Italy, (com.)	12,706	Carcassonne, France	30,689	Cawnpur, India	178,557	Chernigof (Tchernigof), Russia	32,848
Cajamarca, Peru	12,000	Cardenas, Cuba	30,259	Caxias, Brazil	35,000	Cherson (Kherson), Russia	92,000
Calais, France	72,322	Cardiff, Wales	182,401	Cayenne, French Guiana*	12,426	Chertsey, England	13,816
Calape, Philippine Islands	13,354	Carigara, Philippine Islands	16,382	Ceara (Fortaleza), Brazil	50,000	Cheshunt, England	12,954
Calasiao, Philippine Islands	16,539	Carini, Italy, (com.)	13,612	Cebú, Philippine Islands	31,079	Chester, England	39,028
Calatayud, Spain	11,580	Carlentini, Italy, (com.)	11,054	Ceccano, Italy, (com.)	11,369	Chesterfield, England	37,406
Calbayog, Philippine Islands	15,895	Carlisle, England	46,420	Cefaldí, Italy, (com.)	12,741	Chester le Street, England	14,712
Calcutta, India	896,067	Carlsbad (Karlsbad), Austria	17,459	Ceglie Messapico, Italy, (com.)	17,552	Chesterton, England	11,534
Calcutta (with suburbs), India	1,222,313	Carlton, Australia	27,476	Cehgin, Spain	11,655	Chiaramonte, Gulfi, Italy, (com.)	12,706
Cali, Colombia	27,747	Carlton, England	15,581	Celaya, Mexico	25,565	Chiari, Italy, (com.)	12,453
Calicut, India	78,417	Carmagnola, Italy, (com.)	12,338	Celle, Germany	23,263	Chivasso, Italy, (com.)	10,622
Calivo, Philippine Islands	14,574	Carmarthen, Wales	10,221	Cento, Italy, (com.)	18,921	Chiba, Japan	33,341
Callao, Peru	34,436	Carmaux, France	10,894	Centuripe, Italy, (com.)	12,703	Chicaco, India	18,196
Calatania, Italy, (com.)	10,332	Carmignano, Italy, (com.)	12,600	Cernigola, Italy, (com.)	40,026	Chichester, England	12,591
Calatrigone, Italy, (com.)	42,565	Carmona, Spain	17,358	Cerro de Pasco (Pasco), Peru	15,000	Chiclana, Spain	10,868
Caltanissetta, Italy, (com.)	41,312	Carmentis, France	10,721	Cesarea, Turkey in Asia	54,000	Chiclayo, Peru	14,500
Caluire-et-Cuire, France	10,223	Carpi, Italy, (com.)	27,423	Cesena, Italy, (com.)	45,599	Chidambaram, India	19,909
Calumpit, Philippine Islands	13,897	Carrara, Italy, (com.)	49,392	Cetinje (Cettinje), Montenegro*	5,200	Chiangmai, Siam	20,000
Camaguey (Puerto Principe), Cuba	73,284	Carshalton, England	11,634	Cette, France	33,045	Chieri, Italy, (com.)	16,028
Camaioere, Italy, (com.)	18,749	Cartagena, Colombia	36,632	Ceuta, (Sp.) Morocco	24,249	Chieti, Italy, (com.)	25,477
Camalig, Philippine Islands	14,153	Cartagena, Spain	102,519	Chadderton, England	28,299	Chi-fu (Chefu), China	54,000
Cambay, India	31,780	Cartago, Colombia	18,628	Chalchupia, Salvador	21,576	Chigirin (Tchigirin), Russia	12,000
Camborne, England	15,829	Caripano, Venezuela	12,000	Chalcis (Egripos), Greece	10,958	Chihuahua, Mexico	39,706
Cambrai, France	27,832	Carvin, France	42,000	Chalisgaon, India	10,243	Chilapa, Mexico	12,200
Cambridge, England	40,027	Casablanca (Dar-el-Beida), Morocco	70,736	Châlons-sur-Marne, France	31,367	Chillán, Chile	42,500
Cambuslang, Scotland	24,870	Casale, Italy, (com.)	34,068	Châlons-sur-Saône, France	31,550	Chimkent, Russia in Asia	10,756
Camerino, Italy, (com.)	12,091	Casalmaggiore, Italy, (com.)	17,188	Chambéry, France	23,027	Chinameca, Salvador	14,506
Camling, Philippine Islands	25,243	Casarsa, Italy	10,569	Chanda, India	17,803	Chinandega, Nicaragua	12,500
Campanka, Brazil	19,120	Casavel, Brazil	12,800	Chandasi, India	25,711	Chingleput, India	10,551
Campeche, Mexico	16,775	Cascina, Italy, (com.)	27,305	Chandernagore (French), India	28,556	Chingtu (Cheng-tu), China	350,000
Campi Bisenzio, Italy, (com.)	14,198	Cassella e Torri, Italy, (com.)	19,546	Chandpur, India	12,586	Chiniot, India	15,685
Campinas, Brazil	68,000	Caserta, Italy, (com.)	34,014	Changanacheri, India	14,264	Chinkingiang (Ching-Kiang), China	184,000
Campobasso, Italy, (com.)	16,614	Casoria, Italy, (com.)	14,427	Chang-chau, China	1,000,000	Chinnampo (Tching-Nam-po), Chosen (Korea)	15,708
Campobello di Licata, Italy, (com.)	14,186	Cassaba (Kassaba), Turkey in Asia	35,000	Changsha, China	250,000	Chinsura and Hooghly, India	29,383
Campo Mayor (Quixeramobin), Brazil	13,155	Cassel (Kassel), Germany	153,196	Chang-te, China	50,000	Chios, Turkey	25,000
Campes, Brazil	40,000	Cassino, Italy, (com.)	14,177	Channapatna, India	10,425	Chipping Wycombe, England	17,683
Candaba, Philippine Islands	11,783	Castambol, Turkey	19,840	Chantabun, Siam	30,000	Chiquimula, Guatemala	13,000
Candia (Megalokastron), Crete, Greece	25,185	Castellbuono, Italy, (com.)	10,230	Chantada, Spain	15,157	Chiquinquira, Colombia	18,000
Candón, Philippine Islands	18,828	Castelfiorentino, Italy, (com.)	11,188	Chantenay-sur-Loire, France	21,671	Chirala, India	16,264
Canea (Khania), Crete*, Greece	24,209	Castelfranco del Emilia, Italy, (com.)	15,265	Charenton-le-Pont, France	18,372	Chistopol (Tchistopol), Russia	21,500
Cangas de Tineo, Spain	24,025	Castellare (in Venetia), Italy, (com.)	14,434	Charleroi (Charleroy), Belgium	28,177	Chiswick, England	38,697
Cangussu, Brazil	18,940	Castellammare del Golfo, Italy	16,899	Chareville, France	20,702	Chita, Russia in Asia	68,225
Canicatti, Italy, (com.)	30,168	Castellana, Italy, (com.)	11,005	Charlotte Amalie (Saint Thomas), Danish West Indies*	8,248	Chittagong, India	22,140
Canicattini Bagni, Italy, (com.)	10,296	Castellare, Italy, (com.)	10,900	Charlottenburg, Germany	305,978	Chittur (Chittoor), India	10,893
Cannanore (Kananur), India	27,811	Castellone di Stabia, Italy, (com.)	33,951	Charput, Turkey in Asia	25,000	Chivilcoy, Argentina	15,000
Cannes, France	30,420	Castellon de la Plana, Spain	33,309	Charsadda, India	19,354	Chmielnik (Khmielnik), Russia	12,228
Cannock, England	28,586	Castel San Pietro, Italy, (com.)	14,103	Charters Towers, Australia	15,037	Choisy-le-Roi, France	13,067
Cannstatt, Germany	39,351	Castellana, Italy, (com.)	14,670	Chartres, France	23,219	Cholet, France	20,427
Canosa di Puglia, Italy, (com.)	25,823	Casteltermini, Italy, (com.)	14,670	Châteauroux, France	21,408	Cholon, French Indo-China	191,655
Canterbury, England	24,626	Castelvetro, Italy, (com.)	24,657	Château, Belgium	13,238	Choluteca, Honduras	10,850
Canton, China	900,000	Castiglione del Lago, Italy, (com.)	13,884	Châtelineau, Belgium	15,545	Chong-Chun, Manchuria	10,750
Cantu, Italy, (com.)	13,293	Castiglione di Sicilia, Italy, (com.)	13,838	Châtelleraut, France	18,180	Chopda, India	18,612
Capannori, Italy, (com.)	47,650	Castiglione Fiorentino, Italy, (com.)	13,562	Chatra, India	10,599	Chorillo, Peru	15,002
Cape Coast Castle, Gold Coast	11,269	Castleford, England	23,090	Chaumont, France	14,872	Chorley, England	30,315
		Castres, France	28,272	Chauny, France	10,496	Chorzow, Germany	10,875
				Chaux-de-Fonds, La, Switzerland	37,751	Choshi (Shoshi), Japan	25,298
						Chotin (Chotzin), Russia	30,420
						Christchurch, New Zealand	53,116

Christiania (Kristiania), Norway*	243,801	Constantine, Algeria, (com.)	65,173	Cuxhaven, Germany	14,888	Desamparados, Costa Rica	10,774
Christiansand (Kristiansand), Norway	15,154	Constantinople, Turkey*	200,000	Cuyabá, Brazil	34,500	Deshna, Egypt	10,386
Christianstad (Kristianstad), Sweden	11,680	Constantza (Kustendje), Roumania	26,628	Cuyo, Philippine Islands	16,292	Desio, Italy, (com.)	11,910
Christiansund (Kristiansund), Norway	13,012	Conversano, Italy, (com.)	15,256	Cuzco, Peru	20,000	Dessau, Germany	56,605
Chrudim, Austria	14,476	Cooch Behar, India	10,458	Czaslau, Austria	10,108	Desterro (Florlanopolis), Brazil	32,000
Chranów, Austria	11,563	Copenhagen, Denmark (with suburbs)	462,161	Czegled, Hungary	33,942	Deua, Egypt	14,837
Chung King, China	578,000	Copenhagen, Denmark (with suburbs)	559,398	Czerstochowa, Russia	55,500	Detmold, Germany	14,295
Chur (Coire), Switzerland	14,642	Cöpenick, Germany	30,879	Czernowitz, Austria	87,128	Deuben, Germany	11,009
Churu, India	15,657	Copiapo, Chile	11,321	Daan-Bantayan, Philippine Islands	14,735	Duane, Belgium	12,318
Ciechanow, Russia	11,350	Copparo, Italy, (com.)	20,257	Dabhoi, India	14,034	Deutsch Eylau, Germany	10,087
Cienfuegos, Cuba	81,462	Cordoba, Argentina	100,000	Dacca, India	108,551	Deutz, Germany	15,679
Cieza, Spain	13,975	Cordoba (Cordoba), Spain	66,831	Dáet, Philippine Islands	13,423	Devaványa, Hungary	12,800
Cingoli, Italy, (com.)	12,910	Corfu, Greece	27,397	Dagami, Philippine Islands	12,591	Deventer, Netherlands, (com.)	27,787
Cittadella, Italy, (com.)	11,202	Cork, Ireland	76,632	Dagupan, Philippine Islands	20,357	Devonport, England	81,678
Citta di Castello, Italy, (com.)	26,972	Corleone, Italy, (com.)	16,139	Dahhausen, Germany	10,621	Dewas, India	15,403
Cittanova, Italy, (com.)	14,780	Cornigliano, Italy, (com.)	14,654	Dai-Hoku (Tai-pei), Formosa, Japan	91,309	Dewsbury, England	53,351
Ciudad Bolívar, Venezuela	15,000	Corregio, Italy, (com.)	17,154	Dairén (Daly), Manchuria	21,825	Dhandhuka, India	10,314
Ciudad Guzmán, Mexico	17,085	Corrientes, Argentina	30,000	Dakar, Senegal	81,658	Dharangaon, India	14,172
Ciudad Real, Spain	15,327	Cortona, Italy, (com.)	29,303	Dalaguete, Philippine Islands	24,831	Dharapuram, India	17,178
Ciudad Victoria (Durango), Guadiana, Mexico	34,085	Coruna (Corunna), Spain	47,155	Dalny (Dairen), Manchuria	21,354	Dharmavaram, India	10,658
Civitanova, Italy, (com.)	12,185	Cosceley, England	22,834	Dalton-in-Furness, England	81,658	Dharwar, India	31,279
Civitavecchia, Italy	18,736	Cosenza, Italy, (com.)	24,177	Daman, India	10,763	Dholka, India	14,971
Cleekheaton, England	12,866	Cöslin (Köslin), Germany	23,238	Damanhur, Egypt	38,752	Dholpur, India	19,310
Cleethorpe with Thunscocoe, England	21,417	Cossipur-Chitpur (Kasi-pur), India	48,176	Damascus, Turkey in Asia	300,000	Dhoraji, India	24,825
Clermont Ferrand, France	65,386	Coteaux, Haiti	12,000	Damietta, Egypt	29,354	Dhoragadha, India	14,770
Cleves, Germany	18,135	Cöthen (Köthen), Germany	23,416	Damoh, India	13,355	Dhulia, India	24,726
Clichy, France	46,676	Cotbus (Kottbus), Germany	48,643	Dampremy, Belgium	12,595	Diakovitsa, Montenegro	14,050
Cliftheroe, England	12,500	Cotija, Mexico	12,000	Danau, Philippine Islands	16,173	Diamantina, Brazil	15,000
Clonmel, Ireland	10,277	Cotrone, Italy, (com.)	10,684	Dankof (Dankov), Russia	11,000	Diamond, Turkey in Asia	45,000
Clydebank, Scotland	37,547	Coultre, Belgium	11,176	Dantumadeel, Netherlands, (com.)	12,234	Dibai, India	10,759
Coalville, England	18,548	Courbevoie, France	38,138	Danzig, Germany	170,337	Dibre, Servia	10,199
Coatbridge, Scotland	43,287	Courcelles, Belgium	17,971	Darab, Persia	12,000	Dibrugarh, India	11,227
Coatepeque, Salvador	15,528	Courtrai, Belgium	35,689	Daraga, Philippine Islands	18,695	Diedenhausen, Germany	14,184
Cobán, Guatemala	30,800	Coventry, England	106,349	Daraw, Egypt	13,515	Dieppe, France	23,629
Coblentz (Koblentz), Germany	56,487	Covilha, Portugal	15,745	Darbanganah, India	66,244	Differdingen, Luxemburg	13,967
Coburg, Germany	23,789	Cowdenbeath, Scotland	14,029	Dardanelles (Kale Sultant), Turkey in Asia	11,000	Dig, India	15,409
Cocanada, India	48,096	Coyacan, Mexico	13,230	Dar-el-Beida (Casablanca), Morocco	42,000	Dijon, France	76,847
Cochabamba, Bolivia	28,000	Crato, Brazil	20,000	Dar-es-Salaam, German East Africa*	22,215	Dilga, Egypt	13,456
Cochin, India	19,274	Crefeld (Krefeld), Germany	129,406	Dar-es-Salaam, German East Africa*	22,215	Dinaipur, India	13,430
Codigoro, Italy, (com.)	12,649	Crema, Italy, (com.)	11,208	Dar-es-Salaam, German East Africa*	22,215	Dinan, France	11,078
Codogno, Italy, (com.)	10,863	Cremona, Italy, (com.)	40,558	Dar-es-Salaam, German East Africa*	22,215	Dinapur (Dinapur), India	33,699
Cognac, France	19,469	Crevalcore, Italy, (com.)	11,782	Dar-es-Salaam, German East Africa*	22,215	Dindigul, India	25,182
Colimbar, India	53,080	Crevice, Spain	10,946	Dar-es-Salaam, German East Africa*	22,215	Dingle, Philippine Islands	12,129
Colimbar, Portugal	20,581	Crewe, England	44,960	Dar-es-Salaam, German East Africa*	22,215	Dingras, Philippine Islands	15,792
Coin, Spain	12,500	Crimmitchau, Germany	28,818	Dar-es-Salaam, German East Africa*	22,215	Dirschau, Germany	16,894
Coire (Chur), Switzerland	14,642	Croix, France	16,439	Dar-es-Salaam, German East Africa*	22,215	Dison, Belgium	11,434
Cojutepeque, Salvador	10,992	Crompton, England	14,750	Dar-es-Salaam, German East Africa*	22,215	Dittersbach, Germany	12,570
Colchester, England	43,452	Cronenberg, Germany	12,869	Dar-es-Salaam, German East Africa*	22,215	Diu, India	12,000
Colima, Mexico	25,148	Cronstadt (Kronstadt), Russia	60,000	Dar-es-Salaam, German East Africa*	22,215	Dizful, Persia	15,000
Collingwood, Australia	20,254	Crook, England	12,308	Dar-es-Salaam, German East Africa*	22,215	Djeddah, Turkey in Asia	25,000
Colmar (Kolmar), Germany	43,808	Croydon, England	169,551	Dar-es-Salaam, German East Africa*	22,215	Döbeln, Germany	19,627
Colne, England	25,689	Csaba (Békes-Csaba), Hungary	42,599	Dar-es-Salaam, German East Africa*	22,215	Dobritsch (Bazardjik), Bulgaria	18,098
Cologne (Köln), Germany	516,227	Csongrád, Hungary	22,619	Dar-es-Salaam, German East Africa*	22,215	Dohad, India	13,990
Colombes, France	29,143	Cúcuta, Colombia	20,364	Dar-es-Salaam, German East Africa*	22,215	Dôle, France	14,838
Colombo, Ceylon*	227,026	Cuddalore, India	52,216	Dar-es-Salaam, German East Africa*	22,215	Dolnja Tuzla, Austria	11,050
Colon, Panama	12,748	Cuddapah, India	52,216	Dar-es-Salaam, German East Africa*	22,215	Dolon-nor, China	30,000
Colwyn, Wales	17,430	Cuenca, Ecuador	35,000	Dar-es-Salaam, German East Africa*	22,215	Dolo, Nigeria	30,000
Comacchio, Italy, (com.)	12,202	Cuenca, Spain	10,505	Dar-es-Salaam, German East Africa*	22,215	Domb, Germany	13,666
Combaconum (Kumbakonum), India	59,673	Cuernavaca, Mexico	12,776	Dar-es-Salaam, German East Africa*	22,215	Don Benito, Spain	16,565
Comilla, India	19,166	Cuevas de Vera, Spain	26,548	Dar-es-Salaam, German East Africa*	22,215	Dorchester, England	30,516
Comiso, Italy, (com.)	20,769	Culasi, Philippine Islands	10,966	Dar-es-Salaam, German East Africa*	22,215	Donkov (Dankov), Russia	11,000
Commentry, France	10,205	Cullacán, Mexico	13,527	Dar-es-Salaam, German East Africa*	22,215	Dordrecht, Netherlands, (com.)	46,355
Como, Italy, (com.)	44,132	Cullera, Spain	11,947	Dar-es-Salaam, German East Africa*	22,215	Dornach, Austria	10,447
Compiègne, France	16,868	Culmssee (Kulmsee), Germany	10,612	Dar-es-Salaam, German East Africa*	22,215	Dornbirn, Austria	16,575
Concepción, Argentina	11,000	Cumaná, Venezuela	12,057	Dar-es-Salaam, German East Africa*	22,215	Dorogoi, Roumania	13,473
Concepción, Chile	55,554	Cunco, Italy, (com.)	29,122	Dar-es-Salaam, German East Africa*	22,215	Dorózsma, Hungary	15,014
Concepción, Paraguay	25,000	Cura, Venezuela	12,000	Dar-es-Salaam, German East Africa*	22,215	Dorpat (Uriev), Russia	44,140
Concepción, Philippine Islands	12,593	Curico, Chile	18,313	Dar-es-Salaam, German East Africa*	22,215	Dortmund, Germany	214,226
Concordia, Argentina	14,000	Curitiba (Curytibá), Brazil	50,000	Dar-es-Salaam, German East Africa*	22,215	Douai, France	36,314
Concgniano, Italy, (com.)	13,034	Cuttack, India	51,364	Dar-es-Salaam, German East Africa*	22,215	Douarnenez, France	13,568
Congleton, England	11,309			Dar-es-Salaam, German East Africa*	22,215	Douglas, Isle of Man	21,101
Conjevaram, India	46,164			Dar-es-Salaam, German East Africa*	22,215	Dour, Belgium	12,670
Consett, England	11,207			Dar-es-Salaam, German East Africa*	22,215	Dover, England	43,465
Constance, Germany	27,591			Dar-es-Salaam, German East Africa*	22,215	Dowlaisweram, India	10,304

Droydsen, England	13,259	Ekaterinburg, (Yekaterin- burg), Russia	70,000	Estrada, Spain	23,916	Fitzroy, Australia	34,141
Duala, Kamerun*	22,000	Ekaterinodar, Russia	99,600	Etawah, India	42,570	Fiume, Hungary	49,806
Dublin, Ireland*	309,272	Ekerinoslaf, (Yekaterin- osla), Russia	217,848	Etterbeek, Belgium	33,227	Fivizzano, Italy, (com.)	17,399
Dubnitsa, Bulgaria	11,601	El-Bassan, Albania	15,000	Eupatoria, (Kozlov), Russia	30,432	Fivizzano, England	15,875
Dubno, Russia	15,700	Elberfeld, Germany	170,195	Eupen, Germany	13,544	Flensburg, Germany	60,922
Dubovka, Russia	16,543	Elbeuf, France	18,729	Euskirchen, Germany	12,413	Flers, France	13,704
Dudley, England	51,079	Elbing, Germany	58,636	Evring, Germany	12,338	Florence, Italy, (com.)	232,860
Duedweiler, Germany	21,932	Elche, Spain	30,713	Evora, Portugal	17,901	Florianoopolis (Desterro), Brazil	32,000
Duedelingen, Luxemburg	10,788	Elena, Italy, (com.)	10,771	Evreux, France	18,971	Florida, Uruguay	10,606
Due Miglia, Italy, (com.)	14,957	Eletz (Jelets), Russia	49,900	Exeter, England	48,664	Florida, Italy, (com.)	12,522
Duisburg, Germany	229,483	El Fasher, Anglo-Egyptian Sudan	12,000	Exmouth, England	11,962	Floridsdorf, Austria, (com.)	38,727
Dukinfield, England	19,422	El Ferrol (Ferrol), Spain	25,281	Fabiano, Italy	23,752	Florina, Servia	11,000
Dülal, Philippine Islands	14,884	El Hofuf, Turkey in Asia	40,000	Facativa, Colombia	12,100	Flushing (Vlissingen), Netherlands, (com.)	21,363
Dülken, Germany	10,517	Elizavetgrad (Yelisavet- grad), Russia	75,850	Fachan (Fatshan), China	450,000	Foggia, Italy, (com.)	75,777
Dumagueta, Philippine Is- lands	14,894	Elizavetpol (Yelisavetpol), Russia	60,454	Faenza, Italy, (com.)	40,164	Fokshany (Fokshany), Roumania	25,155
Dumangas, Philippine Is- lands	12,428	Elland, England	10,676	Failsworth, England	15,998	Földvár (Duna-Földvár), Hungary	12,117
Dumanjug, Philippine Is- lands	22,230	Eller, Germany	10,942	Faizabad (Fyzabad), India	75,085	Foligno, Italy, (com.)	28,373
Dumbarton, Scotland	21,989	Ellesmere, Port and Whit- by, England	10,366	Faizpur, India	10,181	Folkstone, England	33,502
Dum Dum (North and South), India	20,820	Ellichpur, India	26,082	Fa-kuo-mun, Manchuria	19,432	Fondi, Italy, (com.)	11,378
Dumfries, Scotland	16,062	Ellore, India	33,521	Falkenstein (Saxony), Germany	15,744	Fonsagrada, Spain, (com.)	18,000
Dumraon, India	17,236	Elmshorn, Germany	14,789	Falkirk, Scotland	33,569	Fontainebleau, France	14,190
Dünaburg (Dvinsk), Rus- sia	110,900	Elsinore (Helsingør), Den- mark	13,783	Falmouth, England	13,132	Fontenay le Comte, France	10,326
Duna Földvár, Hungary	12,117	Elvas, Portugal	13,645	Faltiticheni, Roumania	10,120	Fontenay-sous-Bois, France	11,391
Dundalk, Ireland	13,128	Emden, Germany	24,038	Falun, Sweden	11,955	Foochow (Fuchau), China	624,000
Dundee, Scotland	165,006	Emmen, Netherlands, (com.)	27,665	Fancheng, China	100,000	Footscray, Australia	21,933
Dunedin, New Zealand	41,529	Emmerich, Germany	21,566	Fano, Italy, (com.)	26,928	Forbach (in Lorraine), Germany	10,107
Dunfermline, Scotland	28,103	Empoli, Italy, (com.)	21,566	Faridkot, India	10,405	Forest, Belgium	24,228
Dunkirk (Dunkerque), France	38,891	Emsdetten, Germany	10,668	Fardipur, India	11,649	Forfar, Scotland	10,849
Durango (Ciudad Victo- ria, Guadiana), Mex- ico	34,085	Encarnación, Paraguay	12,500	Farnborough, (Hants), England	14,199	Forlì, Italy, (com.)	45,641
Duranzo, Uruguay	10,597	Endrőd, Hungary	11,855	Farnworth, England	28,131	Forst, Germany	33,875
Durban, Natal, Union of South Africa	72,512	Enfield, England	56,338	Farshut Dahasa, Egypt	14,348	Fortaleza (Ceara), Brazil	50,000
Düren, Germany	32,511	English Bazar, India	13,667	Farkhabad, India	67,338	Fort-de-France, Martin- ique*	27,100
Durham, England	17,550	Enschede, Netherlands, (com.)	34,201	Fasano, Italy, (com.)	20,077	Fossano, Italy, (com.)	18,731
Durlach, Germany	13,896	Eperjes (Eperjes), Hun- gary	40,000	Fatehgarh, India	16,278	Fougères, France	23,537
Düsseldorf, Germany	358,728	Epemay, France	21,637	Fatehpur (in Rajputana), India	16,393	Fournies, France	13,876
Dux, Austria	13,500	Epinal, France	30,042	Fatshan (Fachan), China	450,000	Främères, Belgium	12,979
Dvinsk (Dünaburg), Russia	110,900	Epsom, England	19,156	Fatshan (Fachan), China	450,000	Francavilla Fontana, Italy, (com.)	21,527
Ealing, England	61,222	Eradol, India	11,885	Favara, Italy, (com.)	21,599	Francoforte, Italy, (com.)	12,409
Earsdon, England	10,568	Erbaa, Turkey	20,000	Faversham, England	10,619	François, Martinique	12,450
East Barnet Valley, Eng- land	12,381	Erdington, England	32,331	Faw Qibli, Egypt	10,435	Frankenberg (in Saxony), Germany	13,350
Eastbourne, England	52,542	Erfurt, Germany	111,463	Fayum (Medinet el), Egypt	37,320	Frankenthal, Germany	18,779
East Ham, England	133,487	Erith, England	27,750	Felániz, Spain	11,300	Frankfort-on-Main, Ger- many	414,576
Eastleigh and Bishopstoke, England	15,247	Erivan, Russia	32,753	Felégyháza, Hungary	34,924	Frankfort-on-Oder, Ger- many	68,277
East London, C. of G. H., Union of South Africa	21,000	Erlangen, Germany	24,877	Felling, England	25,026	Frascatti, Italy, (com.)	10,577
East Retford, England	13,385	Erlau (Eger), Hungary	28,052	Feltre, Italy, (com.)	15,465	Fraserburgh, Scotland	10,574
East Stophouse, England	13,748	Ernakulam, India	21,901	Feng-hwang-cheng, Man- churia	25,000	Frattamaggiore, Italy	13,720
Eaux-Vives, Switzerland	17,580	Erna, India	15,529	Ferentino, Italy, (com.)	12,928	Fray Bentos, Uruguay	15,000
Ebbw-Vale, England	30,541	Erriad, Arabia	30,000	Fermo, Italy, (com.)	22,570	Fredericia, Denmark	14,228
Eberswalde, Germany	26,075	Ersekülad, Hungary	16,228	Ferozepore (Ferozepur), India	49,341	Frederiksberg, Denmark	97,237
Ebiar, Egypt	11,738	Erzerum, Turkey in Asia	80,000	Ferrara, Italy, (com.)	95,479	Frederikshald, Norway	12,046
Ebingen, Germany	11,423	Erschingian, Turkey in Asia	30,000	Ferrol, Spain	26,270	Frederikstad, Norway	15,624
Eboli, Italy, (com.)	12,741	Esbjerg, Denmark	18,208	Feshn Town, Egypt	11,364	Freiburg, Sierra Leone*	37,724
Eccles, England	41,944	Escalante, Philippine Is- lands	12,192	Feshtown, Germany	14,244	Freiburg, Germany	36,237
Ecija, Spain	23,217	Esch, Luxemburg	16,537	Feshn Town, Egypt	11,364	Freiburg (in Baden), Ger- many	83,324
Ede, Netherlands, (com.)	19,150	Eschwege, Germany	12,542	Feshtown, Germany	14,244	Freising, Germany	14,946
Edu, Bahri, Egypt	12,594	Eschweiler, Germany	24,718	Fez, Morocco*	120,000	Friemantle, Australia	19,830
Edinburgh, Scotland*	320,315	Escuintla, Guatemala	14,000	Fianarantsoa, Madagascar	27,000	Frimley, England	13,673
Edmonton, England	64,797	Escher, and the Dittons, England	12,518	Fidamin, Egypt	10,363	Frome, England	10,901
Edremid (Adramyti), Tur- key in Asia	14,000	Eski Chehir, Turkey in Asia	42,860	Fiesole, Italy, (com.)	10,434	Frosinone, Italy, (com.)	11,646
Eecloo, Belgium	13,536	Eskilstuna, Sweden	28,729	Figline Valdarno, Italy, (com.)	12,035	Fucha, Egypt	14,515
Efremof, Russia	11,100	Eski-Sagra (Stara-Zagora), Bulgaria	22,003	Figueras, Spain	10,714	Fuchau (Poochow), China	624,000
Eger, Austria	25,000	Eski-Shehr, Turkey in Asia	12,000	Figuiéras (Figig, Figig), Morocco	20,000	Fuente Ovejuna, Spain	12,200
Eger (Erlau), Hungary	28,052	Esna, Egypt	19,103	Finale nell' Emilia, Italy, (com.)	13,422	Fukui, Japan	50,396
Egham, England	12,551	Es-Salehiyeh, Turkey in Asia	25,000	Finchley, England	39,419	Fukuoka, Japan	82,106
Egripos (Chalcis), Greece	10,958	Essen, Germany	294,653	Finsterwalde, Germany	13,111	Fukushima, Japan	33,493
Ehrenfeld, Germany	44,405	Esslingen, Germany	32,216	Firenzuola, Italy, (com.)	12,604		
Eickel, Germany	33,496	Eston, England	12,026	Firminy, France	17,944		
Eilenburg, Germany	17,401			Firozabad, India	16,849		
Eilendorf, Germany	10,127			Firozpur (Ferozepore), India	49,341		
Eisenach, Germany	38,362			Fischern, Austria	10,579		
Eisenberg, Germany	10,749						
Eisleben, Germany	24,629						

Fulda, Germany	22,487	Giaveno, Italy, (com.)	10,502	Grado, Spain, (com.)	17,215	Guiljugan, Philippine Islands	14,415
Funchal (Madeira), Portugal	21,570	Gibraltar, Gibraltar	25,367	Gragnano, Italy, (com.)	14,642	Guindulman, Philippine Islands	10,447
Fünfkirchen (Pécs), Hungary	49,822	Gießen, Germany	31,153	Grahamstown, C. of G. H., Union of South Africa	13,803	Guinobatan, Philippine Islands	20,027
Fürstenwalde (in Brandenburg), Germany	22,626	Gifu, Japan	41,488	Grammichele, Italy, (com.)	17,463	Guinan, Philippine Islands	11,594
Fürth (in Bavaria), Germany	66,553	Gijón, Spain	55,088	Grammont, Belgium	12,619	Gujranwala, India	29,224
Fusan (Fousan), Chosen (Korea)	41,081	Gilan (Llan), Formosa, Japan	15,803	Gran, Hungary	17,881	Gujrat, India	19,410
Fushima, Japan	24,883	Gillingham (in Kent), England	52,252	Granada, Nicaragua	17,109	Gulbarga, India	29,228
Fyzabad (Faizabad), India	75,085	Gilly, Belgium	24,211	Granada, Spain	80,511	Guledarg, India	16,786
Gabes, Tunis	16,000	Ginatlan, Philippine Islands	10,617	Grand Combe, France	11,292	Gumbinnen, Germany	14,540
Gablonz, Austria	29,521	Ginosa, Italy, (com.)	10,923	Grand Gosier, Haiti, (com.)	12,000	Gummersbach, Germany	16,044
Gadag, India	30,652	Giosoa Ionica, Italy, (com.)	10,943	Grantham, England	20,070	Gümürjina, Turkey	18,000
Gadwal, India	10,195	Gioia dal Colle, Italy, (com.)	21,837	Graville, France	11,940	Guna (Goon), India	11,452
Gäffe (Gefle), Sweden	35,838	Giovinazzo, Italy, (com.)	10,727	Gratz (Graz), Austria	151,781	Guntur, India	30,833
Gaia (Villa Nova le Gaya), Portugal	14,700	Girgeh (Girga), Egypt	19,893	Graudenz, Germany	40,325	Gurun, Turkey in Asia	12,500
Gainsborough, England	20,587	Girgenti, Italy, (com.)	26,823	Gravenhage (The Hague), Netherlands*	271,250	Güstrow, Germany	17,805
Gaisin, Russia	11,800	Gitschin, Austria	10,400	Gravesend, England	28,118	Gütersloh, Germany	18,336
Galashiels, Scotland	14,531	Giugliano, Italy, (com.)	15,963	Graville-Sainte-Honorine, France	13,273	Gwalior (Lashkar), India	119,433
Galata, Turkey	16,700	Giurgio, Roumania	20,893	Gravina in Puglia, Italy, (com.)	19,900	Gympie, Australia	11,718
Galatina, Italy, (com.)	15,400	Givors, France	12,306	Grays Thurock, England	15,998	Gyoma, Hungary	11,545
Galatz Roumania	71,719	Gizeh (Giza), Egypt	16,487	Graz (Graz), Austria	151,781	Gyöngyös, Hungary	18,314
Galeana, Mexico	13,547	Gladbach (Bergisch), Germany	15,207	Great Crosby, England	12,273	Győr (Raab), Hungary	44,300
Gallarate, Italy, (com.)	15,868	Gladbach (München), Germany	66,414	Great Grimsby (Grimsby), England	74,659	Gyula, Hungary	24,284
Galle (Point de Galla), Ceylon	40,187	Gladbeck, Germany	39,171	Great Harwood, England	13,815	Haarlem, Netherlands, (com.)	69,410
Gallipoli, Italy, (com.)	11,427	Glasgow, Scotland	784,455	Great Yarmouth, (Yarmouth), England	55,905	Haarlemmermeer, Netherlands, (com.)	19,440
Gallipoli, Turkey	25,000	Glatz, Germany	17,121	Greco Milanese, Italy, (com.)	19,275	Hachinohe, Japan	10,650
Galluzzo, Italy, (com.)	20,193	Glauchau, Germany	25,155	Greenock, Scotland	75,140	Hachioji, Japan	27,550
Galway, Ireland	13,249	Glebe, Australia	21,444	Greitewald, Germany	24,679	Hadersleben, Germany	13,046
Gand (Ghent), Belgium	166,445	Gleiwitz, Germany	66,981	Greiz, Germany	23,245	Hagen, Germany	88,608
Gandara, Philippine Islands	12,014	Gloiau, Germany	24,524	Grenoble, France	77,438	Hagenau, Germany	18,865
Gandia, Spain	10,020	Glossop, England	21,688	Greve, Italy, (com.)	14,241	Hagonoy, Philippine Islands	21,304
Gangi, Italy, (com.)	10,397	Gloucester, England	50,035	Griesheim on Main, Germany	11,514	Hague, The (Gravenhage), *Netherlands, (com.)	271,280
Gangoh, India	12,974	Gluhokh, Russia	14,856	Grimma, Germany	11,440	Haidarabad (Hyderabad) (in Haidarabad), India	500,623
Gap, France	10,820	Gmünd (in Württemberg), Germany	21,312	Grimbsy (Great Grimbsy), England	74,659	Haidarabad (in Sind), India	69,378
Gapán, Philippine Islands	11,275	Gnesen, Germany	25,339	Grivegnée, Belgium	11,927	Haifa (Caiffa), Turkey in Asia	25,000
Gardaia, Algeria	28,809	Goa (Nova Goa, Panjim), Portuguese India	10,000	Grodke, Austria	13,400	Haiphong (Haifong), French Indo-China	30,000
Garde Reach, India	42,293	Goave, Haiti (com.)	16,000	Grodno, Russia	66,500	Hai Syöng, Chosen (Korea)	27,646
Gatchina, Russia	15,001	Goch, Germany	11,128	Gronau, Germany	10,082	Hajdú-Böszörmény, Hungary	28,159
Gateshead, England	16,913	Godesberg, Germany	15,810	Groningen, Netherlands, (com.)	74,613	Hajdú-Nánás, Hungary	16,781
Gauhati, India	14,248	Gödhrá, India	20,915	Gros Morne, Haiti, (com.)	22,000	Hajdú-Szoboszló, Hungary	16,093
Gaya, India	71,280	Göding, Austria	12,200	Grosseto, Italy, (com.)	12,442	Hajipur, India	21,398
Gaza, Turkey in Asia	40,000	Gökak, India	10,000	Grosswardein (Nagy Várád), Hungary	64,169	Hakodate, Japan	87,875
Gebweiler, Germany	13,024	Gölgar, England	10,110	Grottaglie, Italy, (com.)	11,851	Hal, Belgium	14,789
Geelong, Australia	21,630	Göllnow, Germany	97,868	Grotte, Italy, (com.)	10,148	Halas (Kiskunhalas), Hungary	24,381
Geestmünde, Germany	25,102	Gomel, Russia	13,000	Grumo Appulo, Italy, (com.)	10,272	Halberstadt, Germany	46,481
Gefle (Gäffe), Sweden	35,838	Gonaives, Haiti	15,811	Guadalajara, Mexico	119,468	Halifax, England	101,553
Geheina, Egypt	20,244	Gonda, India	19,592	Guadalajara, Spain	10,944	Halishahr, India	10,149
Gelli, Anglo-Egyptian Sudan	20,367	Gondal, India	20,332	Guadalupe Hidalgo, Mexico	18,344	Halle (on the Saale), Germany	180,843
Gelligaer, Wales	35,521	Goole, England	11,452	Guadix, Spain	12,652	Halluin, France	16,158
Gelsenkirchen, Germany	169,513	Goona (Guna), India	85,806	Guagua, Philippine Islands	11,028	Halmslad, Sweden	18,332
Gelvelsberg, Germany	18,938	Göppingen, Germany	85,806	Gualdo Tadino, Italy, (com.)	10,448	Halsingborg (Helsingborg), Sweden	33,863
Geneva, Switzerland (city proper)	58,337	Gorakhpur, India	62,178	Gualeguaychu, Argentina	15,000	Halver, Germany	10,224
Geneva, Switzerland, (com.)	155,415	Gori, Russia	12,000	Guanabacoa, Cuba	14,500	Hamadan, Persia	38,000
Gennevilliers, France	11,586	Gorinchem, Netherlands, (com.)	22,343	Guanajuato, Mexico	35,682	Hamah, Turkey in Asia	60,000
Genoa, Italy, (com.)	272,221	Gorizia (Görz), Austria	30,995	Guarene, Venezuela	10,900	Hamamatsu, Japan	32,381
Gentbrugge, Belgium	13,724	Görz (Goritz), Austria	30,995	Guantanamo, Cuba	14,580	Hamborn, Germany	101,703
Georgetown, British Guiana*	54,981	Gosforth, England	15,490	Guaratigueta, Brazil	20,000	Hamburg, Germany	931,035
Georgetown (Penang), Straits Settlements	94,086	Goslar, Germany	18,909	Guastalla, Italy, (com.)	11,881	Hameln, Germany	22,061
Georgievsk, Russia	14,000	Gosport and Alverstoke, England	33,300	Guatemala (New Guatemala), Guatemala	90,000	Hamheung (Ham-Heung), Chosen (Korea)	17,023
Gera, Germany	49,276	Göteborg (Gottenborg), Sweden	173,875	Guayaquil, Ecuador	60,000	Hamilton, Scotland	38,644
Gerardmer, France	10,041	Göteborg (Göteborg), Sweden	39,553	Gubat, Philippine Islands	15,590	Hamme, Germany	43,663
Cerki, Nigeria	15,000	Göttingen (Göttingen), Germany	37,594	Gubbio, Italy, (com.)	27,397	Hamme, Belgium	14,178
Germiston, Transvaal, Union of South Africa	54,327	Göttingen (Göttingen), Germany	37,594	Guben, Germany	38,593	Hanamkonda, India	10,487
Cerona, Philippine Islands	13,615	Gouda, Netherlands, (com.)	24,574	Gudiyattam, India	21,335	Hanau, Germany	37,472
Cerona, Spain	16,875	Goubern, Australia	10,187	Gudur, India	17,251	Han-chung, China	70,000
Cerresheim, Germany	21,339	Govan, Scotland	89,725	Guemlek, Turkey	12,000	Handsworth (Staffordshire), England	68,610
Ghanaim, Egypt	15,440	Goyana, Brazil	35,000	Guilford, England	23,820		
Ghatal, India	34,525	Goyaz, Brazil	16,000				
Ghazipur, India	39,429	Graf Reinet, Union of South Africa	10,200				
Gheel, Belgium	15,458	Gracia, Spain	45,050				
Ghent (Gand), Belgium	166,449						
Giarre, Italy, (com.)	21,605						

Handsworth (Yorkshire), England.....	14,198	Hereford England.....	22,568	Horst (in Westphalia), Germany.....	20,978	Irvine, Scotland.....	10,180
Hang-Chau (Hang-chow), China.....	350,000	Herford, Germany.....	32,527	Horwich, England.....	16,285	Isabela, Philippine Islands.....	12,836
Han-kau (Hankow), China.....	826,000	Herisau, Switzerland.....	15,336	Hoshangabad, India.....	14,940	Ischl, Austria.....	10,200
Hanley, England.....	61,599	Hermannstadt (Nagyszeben), Hungary.....	33,489	Hoshiarpur, India.....	17,549	Iseghem, Belgium.....	14,158
Hanoi, French Indo-China*.....	140,000	Hermopolis, Greece.....	17,773	Hospet, India.....	18,482	Iserlohn, Germany.....	31,274
Hanover (Hannover), Germany.....	302,375	Hermosillo, Mexico.....	14,578	Hove, England.....	42,173	Ishinomaki, Japan.....	15,159
Hansi, India.....	16,323	Herne, Germany.....	57,147	Howrah, India.....	179,006	Iskiliib, Turkey in Asia.....	20,000
Hanwell, England.....	19,129	Herstal, Belgium.....	22,909	Howlake and West Kirby, England.....	14,029	Ismail, Russia.....	35,724
Han-yang, China.....	100,000	Herten, Germany.....	17,673	Hoyland Nether, England.....	14,638	Ismailia, Egypt.....	10,373
Hapur, India.....	17,796	Hertford, England.....	10,383	Huachuq, Peru.....	17,000	Ismidt, Turkey in Asia.....	13,000
Harar, Abyssinia.....	45,000	Hertogenbosch ('s Hertogenbosch), Netherlands, (com.).....	34,928	Huabli, India.....	60,214	Isphan, Persia.....	75,000
Harbin, Manchuria.....	35,000	Heslach, Germany.....	16,884	Hu-chau China.....	100,000	Issoudun, France.....	13,949
Harburg (in Hanover), Germany.....	67,025	Heston and Isleworth, England.....	43,313	Hu-chuan Torkard, England.....	15,870	Issy-les-Moulineaux, France.....	19,128
Harda, India.....	16,300	Hetton, England.....	15,678	Huddersfield, England.....	107,821	Italifi, Afghanistan.....	18,000
Hardenberg, Germany.....	12,606	Hidwood, England.....	26,697	Hue, French Indo-China.....	50,000	Itib (Ishtib), Serbia.....	28,000
Hardoi, India.....	12,174	Hidalgo del Parral, Mexico.....	14,748	Huchuetenango, Guatemala.....	11,000	Itajahy, Brazil.....	15,800
Haridwar, India.....	25,597	Hikone, Japan.....	10,648	Huelva, Spain.....	29,012	Itchen, England.....	19,484
Harlingen, Netherlands, (com.).....	10,209	Hilden, Germany.....	16,903	Huelcal-Overa, Spain.....	15,763	Itid, Brazil.....	11,000
Harput (Kharput), Turkey in Asia.....	20,000	Hildesheim, Germany.....	50,239	Huesca, Spain.....	11,976	Itzehoeh, Germany.....	16,547
Harrogate, England.....	33,703	Hillab, Turkey in Asia.....	20,000	Huaili (Hooghly), India.....	29,383	Ivanovo Voznesensk, Russia.....	167,726
Harrow-on-the-Hill, England.....	17,074	Hilofos, Philippine Islands.....	12,478	Hull (Kingston upon Hull), England.....	277,991	Ivry-sur-Seine, France.....	38,307
Hartlepool, England.....	20,615	Hilversum, Netherlands, (com.).....	31,458	Husch, Roumania.....	16,500	Iwamizawa, Japan.....	22,349
Harwich, England.....	13,622	Himedshi (Himeji), Japan.....	41,028	Huy, Belgium.....	14,545	Ixelles, Belgium.....	72,991
Haskovo, Bulgaria.....	15,067	Himeji (Himedshi), Japan.....	41,028	Hyderabad (Haidarabad), India.....	500,623	Ixtapalapa, Mexico.....	24,507
Hastings, England.....	18,719	Hinckley, England.....	12,837	Hyères, France.....	17,790	Izalco, Salvador.....	12,792
Hasselt, Belgium.....	23,476	Hindley, England.....	24,100	Hyper-Yang, Chosen (Korea).....	40,864	Izhevsk, Russia.....	39,370
Hasselt, Germany.....	17,095	Hindupur, India.....	19,575	Ibadan, Nigeria.....	175,000	Jabalpur (Jubbulpore), India.....	100,651
Hastings, England.....	61,145	Hingol, India.....	17,256	Ibaguè, Colombia.....	24,936	Jacabad, India.....	10,787
Hatfield, Hungary.....	42,578	Hinjosa del Duque, Spain.....	10,673	Ibajay, Philippine Islands.....	14,744	Jacob, Spain.....	29,217
Hatfield, Hungary.....	12,749	Hiroaki, Japan.....	37,487	Ibajay, Philippine Islands.....	12,562	Jaffa (Joppe), Turkey in Asia.....	50,000
Haumont, France.....	13,128	Hiroshima, Japan.....	142,763	Ibajay, Philippine Islands.....	12,562	Jaffna, Ceylon.....	40,539
Havana, Cuba*.....	324,159	Hirschberg, Germany.....	20,564	Ibajay, Philippine Islands.....	19,920	Jagadhri, India.....	13,462
Havre, France.....	136,159	Hissar (Punjab), India.....	17,647	Ibajay, Philippine Islands.....	19,920	Jagdispur, India.....	11,451
Hawick, Scotland.....	16,877	Hitchin, England.....	11,905	Ibajay, Philippine Islands.....	16,800	Jägerndorf, Austria.....	16,700
Hawthorn, Australia.....	24,353	Hobart (in Tasmania), Australia.....	27,505	Ibajay, Philippine Islands.....	25,914	Jagua, Philippine Islands.....	13,123
Hayden, Germany.....	10,481	Hoboken, Belgium.....	16,882	Ibajay, Philippine Islands.....	25,914	Jagraon, India.....	18,760
Haynau, Germany.....	14,462	Höchst (on the Main), Germany.....	17,240	Ibajay, Philippine Islands.....	21,444	Jagial, India.....	11,181
Hazarebich, India.....	15,799	Hodeida, Turkey in Asia.....	50,000	Ibajay, Philippine Islands.....	10,422	Jaguara, Brazil.....	12,175
Hazebrück, France.....	12,819	Hódmező Vásárhely, Hungary.....	62,445	Ibajay, Philippine Islands.....	10,545	Jahangirabad, India.....	11,572
Heanor, England.....	19,851	Hof, Germany.....	41,126	Ibajay, Philippine Islands.....	60,000	Jaipur, India.....	137,098
Heathtown, (Wednesfield Heath), England.....	12,276	Hofenlinburg, Germany.....	13,878	Ibajay, Philippine Islands.....	16,008	Jais, India.....	12,688
Heaton Norris, England.....	11,240	Hohenlunde, Germany.....	10,339	Ibajay, Philippine Islands.....	40,000	Jalandhar (Jullundur), India.....	67,735
Heavitree, England.....	10,950	Hohenmauth, Austria.....	10,960	Ibajay, Philippine Islands.....	78,188	Jalapa, Mexico.....	24,816
Hebburn, England.....	21,763	Hohenalza (Inowraslaw, Inowrazlaw), Germany.....	25,604	Ibajay, Philippine Islands.....	20,000	Jalapur (in Gujrat, Punjab), India.....	10,640
Hebron, Turkey in Asia.....	22,000	Hohenstein-Ernstthal, Germany.....	15,776	Ibajay, Philippine Islands.....	31,657	Jalesar, India.....	14,348
Heerd, Germany.....	14,860	Höhscheid, Germany.....	16,088	Ibajay, Philippine Islands.....	12,202	Jalgaon, India.....	16,259
Heerlen, Netherlands, (com.).....	11,021	Hoi-nau, China.....	12,000	Ibajay, Philippine Islands.....	12,552	Jaina, India.....	20,270
Hegaza, Egypt.....	10,938	Ho-kow, China.....	250,000	Ibajay, Philippine Islands.....	60,000	Jama da (Ujiyama), Japan.....	37,539
Heidelberg, Germany.....	56,016	Hollerich, Luxemburg.....	14,350	Ibajay, Philippine Islands.....	19,054	Jamalpur, India.....	17,965
Heidenheim (in Württemberg), Germany.....	17,780	Hoylehead, Wales.....	10,636	Ibajay, Philippine Islands.....	36,343	Jamboli (Yamboli), Bulgaria.....	15,956
Heilbronn, Germany.....	42,688	Holzminden, Germany.....	10,249	Ibajay, Philippine Islands.....	12,085	Jambusar, India.....	10,181
Helder, Netherlands, (com.).....	27,159	Homburg (Rhenish Prussia), Germany.....	24,803	Ibajay, Philippine Islands.....	34,981	Jamkhandi, India.....	13,029
Hellemes-Lille, France.....	10,971	Homburg (Hesse-Nassau), Germany.....	14,334	Ibajay, Philippine Islands.....	12,912	Jammalamadugu, India.....	13,852
Hellin, Spain.....	12,559	Homs, Turkey in Asia.....	60,000	Ibajay, Philippine Islands.....	22,034	Jammu, India.....	36,130
Helmond, Netherlands, (com.).....	14,767	Hongkong (Br. Colony), China.....	467,777	Ibajay, Philippine Islands.....	11,526	Jampur, India.....	10,921
Helmstedt, Germany.....	16,421	Honolulu, Hawaii*.....	52,183	Ibajay, Philippine Islands.....	86,686	Janina (Yanina), Greece.....	20,000
Helsingborg (Halsingborg), Sweden.....	33,863	Hoozeven, Netherlands, (com.).....	12,652	Ibajay, Philippine Islands.....	10,283	Janiyau, Philippine Islands.....	20,738
Helsingfors, Russia.....	153,643	Hoozeand, Netherlands, (com.).....	10,666	Ibajay, Philippine Islands.....	23,745	Jaoira, India.....	23,854
Helsingör (Elsinore), Denmark.....	13,783	Hooghly (Hugli), India.....	29,383	Ibajay, Philippine Islands.....	53,194	Jaro (in Iloilo), Philippine Islands.....	10,681
Hemel Hempstead, England.....	12,888	Hoorn, Netherlands, (com.).....	11,016	Ibajay, Philippine Islands.....	25,604	Jaro (in Leyte), Philippine Islands.....	11,066
Hendon, England.....	38,806	Hörde, Germany.....	32,791	Ibajay, Philippine Islands.....	31,624	Jaroslavl, Austria.....	23,965
Hengelo, Netherlands, (com.).....	20,073	Hornsey, England.....	84,592	Ibajay, Philippine Islands.....	12,782	Jarrow, England.....	33,726
Hénin-Lietard, France.....	16,016	Hornu, Belgium.....	11,297	Ibajay, Philippine Islands.....	22,216	Jaslo, Austria.....	10,135
Henzada, India.....	24,756	Hordenka, Austria.....	11,800	Ibajay, Philippine Islands.....	18,000	Jassy, Roumania.....	79,882
Heppens, Germany.....	15,324	Horsens, Denmark.....	23,843	Ibajay, Philippine Islands.....	21,469	Jász-Apáthi, Hungary.....	10,873
Herat, Afghanistan.....	20,000	Horsham, England.....	11,314	Ibajay, Philippine Islands.....	11,000	Jász-Berény, Hungary.....	29,675
Heredia, Costa Rica.....	16,280			Ibajay, Philippine Islands.....	19,297	Jativa, Spain.....	12,700
				Ibajay, Philippine Islands.....	108,000	Jauer, Germany.....	13,549
				Ibajay, Philippine Islands.....		Jaunpur, India.....	42,771
				Ibajay, Philippine Islands.....		Jaworów, Austria.....	10,200
				Ibajay, Philippine Islands.....		Jehol (Cheng-te), China.....	260,000
				Ibajay, Philippine Islands.....		Jeletz (Yeletz), Russia.....	49,900
				Ibajay, Philippine Islands.....		Jemappes, Belgium.....	14,270

Jemeppe, Belgium	11,851	Kalmar, Sweden	15,796	Katwijk, Netherlands, (com.)	10,417	Kingston-upon-Thames, England	37,975
Jena, Germany	38,487	Kalocsa, Hungary	12,000	Kavala, Greece	20,000	Kingstown, Ireland	17,227
Jérémie, Haiti	11,000	Kalpi, India	10,139	Kawago, Japan	26,031	Kingswood, England	12,700
Jerez de la Frontiera, Spain	64,250	Kaluga (Kalouga), Russia	54,900	Kawanoye, Japan	11,135	King-te-chen, China	500,000
Jerez de los Caballeros, Spain	10,300	Kalyan, India	10,749	Kayalpatnam, India	11,746	Kioto, Japan	442,462
Jerusalem, Turkey in Asia	69,000	Kamarbati, India	13,216	Kazan (Kasan), Russia	188,150	Kiratrput, India	15,051
Jesi, Italy	24,777	Kamen, Germany	10,754	Kazanlik, Bulgaria	10,568	Kirkhörde, Germany	13,523
Jetpur, India	15,919	Kamenetz-Podolsk, Russia	49,611	Kesckemet, Hungary	66,834	Kirin, Japan	32,189
Jette, Belgium	14,782	Kamenz, Germany	11,533	Keighley, England	43,487	Kirin, Manchuria	122,000
Jhajjar, India	12,227	Kamishin, Russia	20,300	Kelat (Khelat), Baluchistan*	14,000	Kirk-Agatch, Turkey in Asia	15,000
Jhalra Patan Chhaoni, India	14,315	Kampar, Federated Malay States	11,604	Kelung (Külung), Formosa, Japan	17,110	Kirkby in Ashfield, England	15,378
Jhang-Maghiana, India	24,382	Kampen, Netherlands, (com.)	19,745	Kempten, Germany	21,001	Kirkcaldy, Scotland	39,600
Jhansi, India	55,724	Kanagawa, Japan	12,000	Kendal, England	14,033	Kirkkee, India	10,797
Jhelum, India	14,951	Kananur, India	27,811	Kendrapara, India	15,245	Kirkintilloch, Scotland	11,932
Jhunjhunu, India	12,279	Kanauj, India	18,552	Keneh (Iena), Egypt	20,069	Kirk Kilissia, Turkey	17,000
Jibuti (Jubuti), French Somaliland*	12,000	Kanazawa, Japan	110,994	Kerassund (Kerasunt), Turkey in Asia	19,000	Kirsanof, Russia	11,400
Jiddah, Turkey in Asia	22,000	Kandahar, Afghanistan	35,000	Kerbela, Turkey in Asia	65,000	Kishangark, India	12,663
Jimamaylan, Philippine Islands	11,294	Kandha, India	11,563	Kerdasa, Egypt	10,608	Kishinef, Russia	129,000
Jimenez, Mexico	14,217	Kandi, India	12,037	Kerkade, Netherlands, (com.)	15,666	Kishorganj, India	16,246
Jiniganan, Philippine Islands	14,256	Kandy, Ceylon	30,148	Kerkuk, Turkey in Asia	14,080	Kiskinhalas (Halas), Hungary	24,381
Jiotega, Nicaragua	13,915	Kanizsa (Nagykanizsa), Hungary	26,524	Kerman, Persia	60,000	Kis-Ujszállás, Hungary	13,538
Jiotmir (Zhitomir), Russia	88,000	Kankon, French Sudan	11,700	Kermanshah, Persia	32,000	Kitah, Bokhara	15,000
Joaazeiro, Brazil	14,000	Kano, Nigeria	39,368	Kertch, Russia	56,670	Kiukiang, China	36,000
Jodhpur, India	79,109	Kapadwanj, India	15,405	Kettering, England	29,972	Kiungchau, China	43,000
Johannesburg, Transvaal, Union of South Africa	237,220	Kaputthala, India	18,519	Kew, Australia	11,143	Kladno, Austria	19,355
Johstone, Scotland	12,045	Karachi, India	151,903	Khabarovsk, Siberia	54,879	Klagenfurt, Austria	28,911
Johore, Bahr (Johore*), Malay States	22,500	Karad, India	11,499	Khagaria, India	11,492	Klattau, Austria	14,400
Jokjokarta, Java	79,567	Karakikudi, India	11,801	Khairabad, India	13,774	Klausenburg (Kolsovar), Hungary	60,808
Joköping, Sweden	27,864	Karakal, Roumania	13,400	Khairpur, India	14,014	Klosterneuburg, Austria	14,800
Joppa (Jaffa), Turkey in Asia	50,000	Karanja, India	16,535	Khangaon, India	18,341	Klnn, Austria	24,919
Jubbulpore (Jabalpur), India	100,651	Karasubazar, Russia	13,900	Khandwa, India	19,401	Kobe, Japan	378,231
Juchitan, Mexico	13,891	Karauli, India	23,487	Khanika (Canea), Crete	24,207	Kobelyaki, Russia	16,000
Jucupa, Salvador	12,896	Karczag, Hungary	22,996	Kharkof, Russia	248,300	Koblenz (Coblentz), Germany	56,487
Juiz de F6ra, Brazil	30,000	Karikal, French India	20,000	Kharpot (Harpot), Turkey in Asia	20,000	Kobrin, Russia	10,500
Jullunder (Jalandhar), India	67,735	Karlsbad (Carlsbad), Austria	17,459	Khartum, Anglo-Egyptian Sudan*	32,182	Kochi, Japan	38,279
Jumet, Belgium	27,956	Karlsburg (Gyulafehérvár) Hungary	11,616	Khartum, North, Anglo-Egyptian Sudan	26,712	Koekelberg, Belgium	12,750
Jumilla, Spain	16,446	Karlshorst, Germany	10,117	Khatmandu (Katmandu), Nepal*	80,000	Koestendil, Bulgaria	13,748
Junagarh, India	34,251	Karlsruhe, Germany	134,313	Khelat (Kelat), Baluchistan*	14,000	Kofu, Japan	49,882
Jundiaby, Brazil	16,000	Karlstad, Sweden	17,903	Kherson (Cherson), Russia	92,000	Kohat, India	30,762
Jungbunzlau, Austria	16,350	Karnak, Egypt	12,585	Khiva, Russia in Asia	30,000	Koil (Aigarh), India	64,825
Jutiapa, Guatemala	11,023	Karnal, India	23,559	Khmelnik (Chmielnik), Russia	12,228	Kokand, Russia in Asia	113,715
Juticalpa, Honduras	11,103	Karnul (Kurnool), India	25,376	Khojend (Khodjent), Russia in Asia	39,985	Kokura, Japan	31,615
Kabul, Afghanistan*	150,000	Karolinenhof, Austria	24,230	Kholm (Chelm), Russia	17,000	Kolar, India	12,210
Kadaiyanallur, India	13,939	Károlyváros, Hungary	16,112	Kholmsar (Konsar), Persia	12,000	Kolberg, Germany	24,786
Kadi, India	13,070	Kars, Trans Caucasia, Russia	35,485	Khorin (Chotin, Chotzim), Russia	30,420	Kolding, Denmark	14,219
Kadirabad, India	11,159	Karshi, Bokhara	25,000	Khojend (Khodjent), Russia in Asia	39,985	Kolhapur, India	54,373
Kadiri, India	10,493	Kartapur, India	10,840	Kholmsar (Konsar), Persia	12,000	Kolin, Austria	16,500
Kafia (Theodosia), Russia	38,000	Karur, India	12,769	Kholm (Chelm), Russia	17,000	Kolleg, India	13,729
Kafrel Zayat, Egypt	11,405	Karwar, India	16,847	Kholmsar (Konsar), Persia	12,000	Kolmar (Colmar), Germany	43,808
Kagi (Chia-i), Formosa, Japan	22,218	Karwin, Austria	16,800	Khorin (Chotin, Chotzim), Russia	30,420	Köln (Cologne), Germany	516,527
Kagoshima, Japan	63,640	Kasan (Kazan), Russia	188,150	Khulna, India	10,426	Kolomea, Austria	42,676
Kaifong, China	100,000	Kaschau (Kassa), Hungary	44,211	Khurja, India	29,277	Kolonna, Russia	22,000
Kaimganj, India	10,369	Kasganj, India	49,686	Khusbab, India	11,403	Kolovsar (Klausenburg), Hungary	22,337
Kaira, India	10,392	Kashan, Persia	45,000	Khvalynsk, Russia	16,000	Komatsu, Japan	12,800
Kairana, India	19,304	Kashgar, Eastern Turkistan	60,000	Kiao-chau (to Germany), China	60,000	Komorn (Komárom), Hungary	22,337
Kairwan, Tunis	21,000	Kashipur, India	12,023	Kidderminster, England	24,333	Komotat, Austria	19,567
Kaiserslautern, Germany	54,659	Kasimof, Russia	14,250	Kief, Russia	505,980	Kong, French West Africa	15,000
Kaisersbach, Turkey in Asia	54,000	Kasipur (Cossipur-Chitpur), India	48,178	Kiel, Germany	211,627	Konia (Konieh), Turkey in Asia	44,800
Kaithal, India	14,408	Kasr-el-Kebir, Morocco	25,000	Kielce, Russia	32,400	Königsgrätz, Austria	11,100
Kalach, Russia	16,500	Kassa (Kaschau), Hungary	44,211	Kilkenny, Ireland	10,513	Königinhof, Austria	15,108
Kalahasti, India	11,992	Kassab (Cassaba), Turkey in Asia	35,000	Kilmarnock, Scotland	34,729	Königliche Weinberge, Austria	77,120
Kalamata, Greece	13,123	Kassel (Cassel), Germany	153,190	Kimberly, Transvaal, Union of South Africa	34,331	Königsberg, Germany	245,994
Kalashani, Roumania	11,411	Kastamuni, Turkey in Asia	15,000	Kimpolung, Roumania	14,861	Königshütte, Germany	7,641
Kalbe (on the Saale), Germany	12,088	Kastoria, Greece	14,000	Kinchau (Kin-Chow), Manchuria	276,270	Konitz, Germany	12,005
Kale Sultanieh (Dardanelles), Turkey in Asia	11,000	Kasur, India	22,022	Kin-el-Tcherkasska, Russia	16,000	Konotop, Russia	24,000
Kalgan, China	13,488	Kasvin, Persia	30,000	King's Lynn, England	20,201	Konsar (Khonsar), Persia	12,000
Kalgoolie, Australia	52,562	Katernberg, Germany	17,162	King's Norton and Northfield, England	81,153	Konstantinof, Russia	19,000
Kalish (Kalish), Russia	27,657	Katmandu (Khatmandu), Nepal	80,000	Kingston, Jamaica*	57,379	Kopril (Kuprili), Servia	15,000
Kalk, Germany	10,070	Kattowitz, Germany	43,173	Kingston-upon-Hull (Hull), England	277,991	Koritz (Goritz), Albania	10,000
Kalkandele (Tetovo), Servia	14,913					Köslin (Cöslin), Germany	23,236

Kostendil, Bulgaria	12,347	Kursk, Russia	75,000	Las Palmas, Canary Is-		Les Sables-d'Olonne,	
Kostroma, Russia	67,300	Kurume, Japan	35,928	lands	60,338	France	12,673
Kota Bharu, Feudatory		Kustania, Russia in Asia	27,104	Lassa (Lhassa), Tibet*	30,000	Lessines, Belgium	10,736
Malay States	12,000	Kustendje (Constantza),		Lastra a Signa, Italy,		Letichet, Russia	10,000
Kotah, India	33,657	Roumania	26,628	(com.)	12,838	Leutisch, Germany	12,327
Köthen (Cöthen), Ger-	23,416	Küstrin, Germany	17,600	Latacunga, Ecuador	12,000	Levallois-Perret, France	68,703
Kotshan (Kuchan), Persia	12,000	Kutahia (Kaitaia), Tur-		Lattakia, Turkey in Asia	25,000	Lewes, England	10,972
Kottbus (Cottbus), Ger-		key in Asia	34,000	Latur, India	10,479	Leyton, England	124,735
many	48,643	Kutais, Russia	57,400	Lauban, Germany	15,467	Lhassa (Lassa), Tibet*	30,000
Koumanova, Turkey	12,000	Kutyiana, India	10,287	Lauenburg (in Pomerania),		Liang-chau, China	40,000
Kovel, Russia	20,800	Kutno, Russia	13,500	Germany	13,916	Liao-yang, Manchuria	40,000
Kovno, Russia	88,000	Kuttenburg, Austria	15,711	Laun, Bohemia, Austria	11,500	Libau (Libava), Russia	67,300
Kovrof, Russia	16,750	Kuwana, Japan	21,544	Launceston, Australia	20,937	Libmanan, Philippine Is-	
Kozlof (Eupatoria), Russia	30,432	Kuznetzk, Russia	23,400	La Union, Spain	29,599	lands	17,416
Krajoevatz, Serbia	18,386	Kwala (Kuala) Lumpur,		Laurahütte, Germany	16,120	Libourne, France	19,323
Krajova (Crajoval), Rou-		Federated Malay States	46,718	Lauria, Italy, (com.)	10,000	Licata, Italy, (com.)	24,530
mania	51,973	Kwang-Chow-Wan, Indo-		Laurion (Laurium), Greece	10,007	Lichtenburg, Germany	81,199
Krakow, Austria	151,886	China	190,000	Lausanne, Switzerland	64,446	Lichterfelde, Germany	42,513
Krasnoyarsk, Siberia	80,104	La Carlota, Philippine Is-		Lavadores, Spain	21,070	Lida, Russia	10,150
Krasnyastav, Russia	10,750	lands	13,097	Laval, France	30,252	Lieben, Austria, (com.)	21,300
Kray, Germany	17,856	La Chaux de Fonds, Switz-		Lavello, Italy, (com.)	10,163	Liège, Belgium	167,521
Krefeld (Crefeld), Ger-		erland	37,751	Leamington (Royal Leam-		Liegnitz, Germany	66,620
many	129,406	Lachmangarh, India	10,176	ington), England	26,888	Lien-kiang, China	300,000
Kremenchug, Russia	98,700	La Ciotat, France	12,370	Lebedin, Russia	14,850	Lierre, Belgium	25,869
Kremenetz, Russia	20,000	L'Acud du Nord, Haiti,		Le Bouscat, France	11,092	Ljévin, France	22,070
Krems, Austria	14,404	(com.)	10,000	Lebrja, Spain	11,500	Ligao, Philippine Islands	17,687
Kremsier, Austria	16,572	Laeken, Belgium	35,024	Le Cateau, France	10,700	Lille (Lisle), France	217,807
Kreuzburg, Germany	11,588	La Estrada, Spain	27,898	Lecce, Italy, (com.)	36,222	Liloan, Philippine Islands	10,024
Kreuznach, Germany	23,167	La Flèche, France	10,663	Lecco, Italy, (com.)	12,146	Lima, Peru*	143,500
Krishnagar, India	24,547	Lagos, Mexico	12,243	Le Chambon-Feugerolles,		Limasol, Cyprus	10,032
Krishnagari, India	10,446	Lagos, Nigeria	60,000	France	12,011	Limbach, Germany	16,806
Kristiania (Christiania),		La Grita, Venezuela	10,000	Le Chatelard, Switzerland	11,859	Limbdi, India	12,485
Norway*	243,801	La Guaira, Venezuela	15,000	Lechhausen, Germany	18,405	Jimbé, Haiti, (com.)	16,000
Kristiansand (Christians-		Laharpur, India	10,997	Le Creuzot, France	35,587	Limbürg (on the Lahn),	
and), Norway	15,154	Lahore, India	228,687	Ledeberg, Belgium	14,000	Germany	10,965
Kristianstad (Christians-		Lahr, Germany	15,191	Leeds, England	445,550	Limerick, Ireland	38,403
stad), Sweden	11,680	Laibach, Austria	41,727	Leek, England	16,663	Limoges, France	92,181
Kristiansund (Christians-		Lai-yang, China	50,000	Leer, Germany	12,690	Linares, Chile	11,122
sund), Norway	13,012	Lakhimpur, India	10,110	Leeuwarden, Netherlands,		Linares, Mexico	25,600
Krivoi-Rog, Russia	14,500	Lakon, India	25,000	(com.)	36,522	Linares, Spain	36,287
Kronstadt (Brassó), Hun-		Lakshmehwar, India	12,860	Leewardadeel, Nether-		Linden, England	57,285
gary	68,300	Lalganj, India	11,502	lands, (com.)	11,594	Linden (in Hanover), Ger-	
Kronstadt (Cronstadt),		Lalin, Spain	16,238	Leghorn, Italy, (com.)	105,315	many	73,379
Russia	60,000	La Linea, Spain	32,005	Legnago, Italy, (com.)	16,982	Linden (in Westphalia),	
Krotoschin, Germany	13,064	Lalitpur, India	11,560	Legnano, Italy, (com.)	24,367	Germany	11,981
Kroya (Ak Hissar), Alba-		La Louvière, Belgium	21,379	Le Havre (Havre), France	136,159	Lindenthal (near Cologne),	
nia	10,000	La Maddalena, Italy,		Lehe, Germany	37,457	Germany	16,034
Krugersdorp, Transvaal,		(com.)	10,184	Leicester, England	227,222	Lingayén, Philippine Is-	
Union of South Africa	53,881	La Madeleine, France	13,522	Leichhardt, Australia	24,139	lands	21,529
Krushevo, Serbia	10,000	Lambézellec, France	18,870	Leiden, Netherlands,		Linguaglossa, Italy, (com.)	12,653
Kuala (Kwala), Lumpur,		Lampertheim, Germany	10,333	(com.)	58,253	Linpöping, Sweden	23,613
Federated Malay States	46,718	Lancaster, England	41,410	Leigh (in Lancashire),		Linz, Austria	67,817
Kuba, Russia	14,000	Lanchau, China	110,000	England	44,103	Lipá, Philippine Islands	37,934
Kuchan (Kotshan), Persia	12,000	Lanciano, Italy, (com.)	19,917	Leipzig, Germany	589,850	Lipari, Italy, (com.)	15,616
Kuchawan, India	10,749	Landau (Pfalz), Germany	17,767	Leith, Scotland	80,489	Lipetsk, Russia	25,000
Kuching (Sarawak), Sara-		Landschut, Germany	13,571	Leitmeritz, Bohemia, Aus-		Lipine, Germany	18,190
wak*, Borneo	30,000	Landsburg (on the War-		tria	15,500	Lippstadt, Germany	16,360
Kukea, Nigeria	50,000	the), Germany	39,339	Le Kremlin-Bicêtre, France	13,018	Lisbon, Portugal*	435,359
Kuku-khoto, China	80,000	Landsht, Germany	25,137	Le Locle, Switzerland	12,722	Lisburn, Ireland	12,172
Kulasekarapatnam, India	19,898	Landskrona, Sweden	16,459	Le Mans, France	69,361	Lisieux, France	16,239
Kuldja, Eastern Turkestan	14,000	Lafigan, Philippine Is-		Lemberg, Austria	206,113	Lisle (Lille), France	217,807
Kulm, Germany	11,718	lands	11,318	Lemery, Philippine Islands	11,150	Lissa, Germany	17,156
Kulmbach, Germany	10,731	Langenbielan, Germany	18,514	Le Moule, Guadeloupe	10,000	Lissone, Italy, (com.)	10,580
Kulmsee (Culmsee), Ger-		Langendreer, Germany	26,390	Lena, Spain	12,239	Litherland, England	14,795
many	10,612	Langesalza, Germany	12,663	Lennepe, Germany	13,123	Litin, Russia	10,200
Kum (Kom), Persia	25,000	Langerfeld, Germany	14,832	Lens, France	31,812	Littleborough, England	11,697
Kumagaya, Japan	11,000	Langfurh, Germany	25,828	Leintini, Italy, (com.)	22,904	Liverpool, England	746,421
Kumamoto, Japan	61,233	Langred, Spain	25,564	Leoben (in Styria), Austria	11,504	Liversedge, England	14,658
Kumasi, Gold Coast	18,853	Laog, Philippine Islands	34,454	Leobschütz, Germany	13,081	Livny, Russia	21,100
Kumbakonum (Comba-		Laon, France	15,288	Léogane, Haiti, (com.)	30,000	Llandudno, Wales	10,469
conum), India	59,673	La Paz, Bolivia*	80,000	León, Mexico	63,263	Llanely (in Carmarthen),	
Kumpta, India	10,818	La Piedad, Mexico	10,604	León, Nicaragua	62,600	Wales	32,071
Kunch, India	15,888	La Plata, Argentina	106,382	León, Philippine Islands	10,277	Llanes, Spain	21,986
Kung-chang, China	50,000	Lar, Persia	12,000	León, Spain	17,022	Loanda (Saint Paul de	
Kungur, Russia	15,500	Larache, Morocco	12,250	Leonforte, Italy, (com.)	19,760	Loanda), Angola*	20,156
Kin-Szent Márton, Hun-		Lari, Italy, (com.)	12,268	Le Perreux, France	13,255	Löbau, Germany	11,261
gary	10,769	Larissa, Greece	18,001	Le Petit-Quevilly, France	14,929	Loboc, Philippine Islands	10,756
Kiupio, Russia	16,000	Larkana, India	14,543	Le Pre - Saint - Gervais,		Lodelinsart, Belgium	10,005
Koprikl (Kopri), Serbia	15,000	La Rochelle, France	36,371	France	11,669	Lodi, Italy, (com.)	28,032
Kurandvad, India	10,451	La Roche-sur-Yon, France	13,685	Le Puy, France	21,420	Lodz, Russia	415,617
Kure, Japan	100,679	Larvik, Norway	10,151	Lercara Friddi, Italy,		Logone, Kamerun	12,000
Kurgan, Siberia	16,500	Las Cahobas, Haiti	12,000	(com.)	11,315	Logroño, Spain	23,926
Kurla, India	14,831	La Serena, Chile	24,425	Lérída, Spain	24,531	Lo-hui, China	85,000
Kurnool (Karnul), India	25,376	La Seyne-sur-Mer, France	18,685	Lescovatz, Serbia	14,266	Loja, Ecuador	10,732
		Lashkar (Gwalior), India	119,433	Les Lilas, France	10,470	Loja, Spain	19,200

Lokeren, Belgium	22,675	Macão, Portuguese China*	78,627	Managrol, India	15,016	Matera, Italy, (com.)	17,324
Lokhvitsa, Russia	10,200	Macassar, Celebes	26,145	Manikotla, India	53,767	Matsue (Matsuye), Japan	36,209
Lome, Togoland*	90,000	Macclesfield, England	34,797	Manila, Philippine Islands*	219,928	Matsumoto, Japan	35,011
Lom-Palanka, Bulgaria	11,081	Maccio, Brazil	35,000	Manissa (Magnésia), Turkey in Asia	40,000	Matsuyama, Japan	44,166
Lomza, Russia	27,900	Macarata, Italy, (com.)	22,940	Manizales, Colombia	24,720	Matsuye (Matsue), Japan	36,209
London, England*	4,521,685	Macon, France	19,059	Manly, Australia	10,687	Mattancheri, India	20,061
Londonderry, Ireland	40,799	Macoris, Dominican Republic	15,000	Mannargudi, India	20,449	Mau, India	17,696
Longbenton, England	12,443	Madakasira, India	10,666	Mannheim, Germany	193,902	Mauban, Philippine Islands	12,021
Long Eaton, England	19,207	Madonnapalle, India	14,084	Manresa, Spain	22,084	Maybeuge, France	21,520
Longton, England	35,815	Maddaripur, India	17,463	Mansfield, England	36,888	Mauka (in Sakhalin), Japan	11,052
Loniago, Italy, (com.)	11,172	Madraloni, Italy, (com.)	19,783	Mansfield Woodhouse, England	11,015	Mau-Ranipur, India	17,231
Lonneker, Netherlands, (com.)	17,577	Madhubani, India	17,802	Mansura, Egypt	40,279	Mayaguez, Porto Rico	16,591
Lons-le-Saunier, France	13,133	Madras, India	518,660	Mantua, Italy, (com.)	32,660	Mayavaram, India	24,276
Loon, Philippine Islands	18,114	Madrid, Spain*	594,279	Manzanares, Spain	11,219	Mayebashi, Japan	45,183
Loos, France	10,640	Madura, India	134,130	Manzanillo, Cuba	15,829	Mayence (Mainz), Germany	144,421
Lorca, Spain	72,795	Maebashi, Japan	45,183	Maousta, Turkey	12,000	Mayenne, France	110,634
Lorient, France	49,339	Maesteg, Wales	24,977	Mapuca, Portuguese India	10,733	Mayobamba, Peru	10,000
Lörrach, Germany	14,756	Magaldán, Philippine Islands	15,841	Maracaibo, Venezuela	50,000	Mazagan, Morocco	33,600
Los Angeles, Chile	19,410	Magdeburg, Germany	279,629	Maragha, Persia	15,000	Mazamet, France	14,386
Losoncz, Hungary	12,939	Magenta, Italy, (com.)	10,137	Máramaros, Sziget (Sziget), Hungary	17,445	Mazara del Vallo, Italy, (com.)	24,865
Losser, Netherlands, (com.)	10,099	Magnessia (Manissa), Turkey in Asia	40,000	Maranhão (San Luiz), Brazil	40,000	Mazarrón, Spain	22,878
Lota (Lota Baja), Chile	10,732	Mahé (Fr.), India	10,298	Marash, Turkey in Asia	65,000	Mazatlán, Mexico	21,219
Loughborough, England	22,990	Mahoba, India	10,074	Marburg, Austria	27,994	Mazzarino, Italy, (com.)	15,920
Loulé, Portugal	22,501	Mahrisch-Ostau, Austria	36,754	Marburg, Germany	21,860	Meaux, France	13,921
Lourenço Marquez, Portuguese East Africa*	10,000	Mahrsch-Schönberg, Austria	13,400	Marbionne (-au-Pont), Belgium	21,635	Mecca, Arabia	80,000
Louvain, Belgium	42,123	Mahuva, India	17,549	Marcianise, Italy, (com.)	13,465	Meclhin, Belgium	59,142
Louviers, France	10,302	Maidenhead, England	15,219	Marcinelle, Belgium	17,939	Medan, Sumatra	12,100
Lower Bebington, England	11,401	Maidstone, England	35,475	Mardine, Turkey in Asia	27,000	Medea, Algeria	15,154
Lowestoft, England	33,777	Maikop, Russia	45,103	Mareq-en-Baraul, France	11,520	Medellin, Colombia	71,004
Lowicz, Russia	13,500	Mainpuri, India	19,000	Margam, Wales	14,713	Medellin, Philippine Islands	10,578
Luang Prabang, Indo-China	15,000	Mainz (Mayence), Germany	110,634	Margao, Portuguese India	12,126	Medicina, Italy, (com.)	13,632
Luarca, Spain	23,225	Maisons-Alfort, France	13,409	Margate, England	27,085	Médina, Turkey in Asia	40,000
Lubao, Philippine Islands	19,063	Makalla, Arabia	12,000	Margelan, Russia in Asia	36,592	Medina-Sidonia, Spain	11,101
Lübeck, Germany	98,656	Makarska, Austria, (com.)	12,200	Marianao, Cuba	10,634	Medinet-el-Fayoum, Egypt	37,320
Lublin, Russia	65,870	Makó, Hungary	34,918	Mariano di Napoli, Italy, (com.)	11,934	Meerane, Germany	25,470
Lubny, Russia	11,800	Malabúyoc, Philippine Islands	11,781	Maria Theresiopel (Szabadka), Hungary	94,610	Meerut, India	118,129
Lubnan, Philippine Islands	10,227	Malacca, Straits Settlements	20,000	Maribojoc, Philippine Islands	11,830	Megalokastron (Candia), Crete	25,185
Lucca, Italy, (com.)	75,441	Malaga, Spain	136,365	Mariburg, Germany	14,019	Mehallat el-Kebir (Mehalla), Egypt	33,547
Lucena, Spain	16,020	Malakoff, France	16,630	Mariendorf, Germany	15,423	Mehallat Marhum, Egypt	11,617
Lucera, Italy, (com.)	21,922	Malasiqui, Philippine Islands	14,550	Marienderf, Germany	12,983	Mehndawal, India	10,143
Lucerne, Switzerland	39,339	Malatia, Turkey in Asia	61,000	Marienberg, Germany	12,502	Meiningen, Germany	17,131
Luckenwalde, Germany	23,476	Maldegem, Belgium	10,437	Mariignano, Italy, (com.)	14,000	Meissen, Germany	33,884
Lucknow, India	259,798	Malegona, India	19,054	Mariinsk, Siberia	53,100	Mekinez (Mequinez), Morocco	56,000
Lüdenscheid, Germany	32,301	Maler Kotla, India	21,122	Mariupol, Russia	11,778	Meklong, Siam	10,000
Ludhiana, India	48,694	Malinao, Philippine Islands	12,437	Maronax, Uruguay	10,000	Melbourne, Australia*	103,893
Ludwigshafen, Germany	24,926	Malintog, Philippine Islands	11,034	Maros-Vasárhely, Hungary	25,517	Melbourne, Australia (with suburbs)	600,208
Ludwigshafen (on the Rhine), Germany	83,301	Malkapur, India	13,112	Marrickville, Australia	25,993	Melfi, Italy, (com.)	13,744
Lugano, Switzerland	13,251	Mallanwán, India	11,158	Marsala, Italy, (com.)	65,451	Melig, Egypt	10,529
Lugansk, Russia	60,300	Malmö, Sweden	92,338	Marsciano, Italy, (com.)	14,520	Mellila, Morocco	15,000
Luganskaia, Russia	27,867	Malolos, Philippine Islands	12,575	Marseille, France	550,616	Mellawi Town, Egypt	20,249
Lugo, Italy, (com.)	35,726	Malvern, Australia	15,319	Marsovan, Turkey in Asia	15,900	Melo, Uruguay	12,355
Lugo, Spain	19,818	Malvern, England	16,513	Marten, Germany	11,615	Melun, France	13,908
Lugos, Hungary	11,500	Malwan, India	19,626	Martina, France, Italy, (com.)	25,007	Melur, India	10,100
Lukow, Russia	20,423	Manacor, Spain	12,548	Martos, Spain, (com.)	17,000	Memel, Germany	21,470
Lund, Sweden	27,790	Managua, Nicaragua*	35,000	Marugue, Japan	27,019	Memmingen, Germany	12,362
Lüneburg, Germany	10,530	Manama, Turkey in Asia	21,000	Maryport, England	11,418	Menado, Celebes	10,033
Lünen, Germany	24,266	Mandaoag, Philippine Islands	16,793	Masampo, Chosen (Korea)	11,022	Menaldumadeel, Netherlands, (com.)	10,205
Lunéville, France	24,266	Manaos, Brazil	80,000	Masar-i-Sherif, Afghanistan	23,000	Menden, Germany	11,281
Lung-chau (Lung-chow), China	25,000	Manapia, Philippine Islands	10,123	Masaya, Nicaragua	22,000	Mendoza, Argentina	60,000
Luque, Paraguay	15,000	Manbájao, Philippine Islands	14,446	Mascara, Algeria	24,254	Menfi, Italy, (com.)	11,189
Lurgan, Ireland	12,135	Manchester, England	714,333	Masheha, Bornu	10,000	Mengo, Uganda	32,444
Lütgendortmund, Germany	14,983	Mandalay, India	183,816	Masket (Muscat), Oman*	28,000	Meng-tsz, China	15,000
Luton, England	49,978	Mandasor, India	20,936	Massa, Italy, (com.)	30,625	Menin, Belgium	18,636
Lüttrichhausen, Germany	13,560	Mandaue, Philippine Islands	11,078	Massafra, Italy, (com.)	11,104	Mentone (Menton), France	13,029
Lutz, Russia	31,800	Manduri, Italy, (com.)	14,031	Massa Marittima, Italy, (com.)	18,113	Menut, Egypt	22,316
Luxemburg, Luxemburg*	20,848	Mandvi, India	24,683	Massarosa, Italy, (com.)	11,111	Meppal, Netherlands, (com.)	11,446
Luxor, Egypt	12,644	Manfaat, Egypt	14,482	Massaua (Massowa, Massawa), Erythraea	15,007	Meran, Austria	11,570
Lyalypur, India	13,483	Manfredonia, Italy, (com.)	13,692	Masulipatam, India	39,500	Mercato San Severino, Italy, (com.)	11,323
Lyck, Germany	13,428	Mangalore, India	44,108	Matagalpa, Nicaragua	16,000	Mercedes, Uruguay	15,667
Lye and Wollescote, England	11,684	Mangaratém, Philippine Islands	12,895	Matanzas, Cuba	56,566	Mergui, India	11,987
Lyon, France	523,796	Manglaur, India	10,763	Matará, Spain	19,800	Merheim, Germany	23,604

Mérida, Mexico	62,447	Montezuma, Mexico	15,500	Morelia, Mexico	40,042	Nagoya, Japan	378,231
Mérida, Spain	11,200	Modena, Italy, (com.)	71,416	Morioka, Japan	36,012	Nagpur, India	101,415
Mérida, Venezuela	12,100	Modica, Italy, (com.)	55,924	Morlaix, France	15,984	Naguilian, Philippine Is-	
Merseburg, Germany	21,226	Mödling, Austria	18,100	Morley, England	24,282	lands	11,885
Mersina, Turkey in Asia	22,000	Mudugno, Italy, (com.)	11,784	Morocco, Morocco*	87,120	Nagy-Bánya, Hungary	12,877
Merthyr Tydfil, Wales	80,990	Mogador, Morocco	22,000	Moron (in Seville), Spain	14,190	Nagy-Becserek, Hungary	22,370
Merton, England	12,938	Moghileh (Mohileh) on the		Mörs, Germany	23,251	Nagy-Károly, Hungary	16,078
Merv, Russian Turkistan	11,500	Dniester, Russia	32,604	Morshansk, Russia	31,802	Nagy-Kikinda, Hungary	24,843
Mexem, Belgium	17,659	Moghács, Hungary	10,262	Morvi, India	17,820	Nagy-Körös, Hungary	28,575
Mesagne, Italy, (com.)	13,740	Mohács, Hungary	15,832	Moscow (Moskva), Russia	1,617,157	Nagy-Szalonta, Hungary	14,107
Mesched, Persia	130,000	Mohileh (Mohilev) on the		Mosdok, Russia	13,286	Nagy-Szeben (Hermann-	
Messina, Italy, (com.)	10,059	Dniester, Russia	54,058	Mosman, Australia	13,189	stadt), Hungary	33,489
Messina, Italy, (com.)	126,557	Moji, Japan	55,682	Mosley, England	13,205	Nagy-Szent-Miklós, Hunga-	
Mestran, Italy, (com.)	17,306	Mokameh, India	13,861	Moslem, England	13,205	gary	12,639
Mestran, Salvador	15,936	Mok-pho, Chosen (Korea)	10,220	Moslem, England	13,205	Nagy-Várads (Grosswar-	
Mettman, Germany	10,760	Mokshan, Russia	11,600	Moslem, England	13,205	dein), Hungary	64,169
Metz, Germany	68,598	Mola di Bari, Italy, (com.)	14,911	Moslem, England	13,205	Nahnizalco, Salvador	13,224
Meudon, France	10,289	Molenebeek (Molenebeek-		Moslem, England	13,205	Naihati, India	13,604
Mexborough, England	14,401	Saint Jean), Belgium	72,783	Moslem, England	13,205	Naini Tal, India	17,609
Mexico, Mexico*	471,066	Mole St. Nicholas, Haiti	12,000	Moslem, England	13,205	Nairobi, British East	
México, Philippine Islands	13,469	Molietta, Italy, (com.)	43,263	Moslem, England	13,205	Africa*	16,107
Mező Berény, Hungary,		Molinella, Italy, (com.)	12,214	Moslem, England	13,205	Najibabad, India	19,568
(com.)	12,875	Mombasa, British East		Moslem, England	13,205	Nakatsu, Japan	15,452
Mező Kövesd, Hungary,		Africa	30,000	Moslem, England	13,205	Nakheila, Egypt	13,489
Mező-Túr, Hungary	15,254	Mompas, Colombia	11,000	Moslem, England	13,205	Nakhichevan (Caucasia),	
Mhow, India	25,835	Monaco, Monaco*	3,292	Moslem, England	13,205	Russia	11,100
Miagao, Philippine Islands	36,039	Monastir (Bitolia), Serbia	59,856	Moslem, England	13,205	Nakhichevan (Don Cos-	
Miava, Hungary	10,700	Moncada, Philippine Is-		Moslem, England	13,205	sacks), Russia	70,850
Middleburg, Netherlands,		lands	13,003	Moslem, England	13,205	Nakodak, India	10,000
(com.)	19,564	Moncalieri, Italy, (com.)	12,925	Moslem, England	13,205	Namagapán, Philippine	
Middlesbrough, England	104,767	Monclova, Mexico	15,000	Moslem, England	13,205	Islands	11,116
Middleton, England	27,980	Monfedi, Italy, (com.)	19,593	Moslem, England	13,205	Namangan, Russia in Asia	73,278
Midnapur, India	33,140	Monforte de Lemos, Spain,		Moslem, England	13,205	Nam Dinh, French Indo-	
Mieres, Spain	28,195	(com.)	12,941	Moslem, England	13,205	China	60,000
Migulinskia, Russia	28,146	Monghyr, India	35,880	Moslem, England	13,205	Namur, Belgium	32,362
Mikhailovsk, Russia in		Monopol, Italy, (com.)	24,101	Moslem, England	13,205	Nanao, Japan	13,100
Asia	17,848	Monóvar, Spain	10,600	Moslem, England	13,205	Nanchang, China	132,000
Mikultschütz, Germany	13,823	Monreale, Italy, (com.)	20,103	Moslem, England	13,205	Nancy, France	119,949
Milan, Italy, (com.)	599,200	Monrovia, Liberia*	8,000	Moslem, England	13,205	Nanded, India	14,184
Milazzo, Italy, (com.)	16,569	Mons, Belgium	27,828	Moslem, England	13,205	Nandial, India	15,137
Militeo, Italy, (com.)	11,232	Monsie, Italy, (com.)	13,092	Moslem, England	13,205	Nandod, India	11,236
Millau, France	18,482	Montagnana, Italy, (com.)	11,176	Moslem, England	13,205	Nandurbar, India	10,922
Milpa Alta, Mexico	16,268	Montaione, Italy, (com.)	10,790	Moslem, England	13,205	Nankin Nanking), China	267,000
Minas, Uruguay	13,346	Montale, Italy, (com.)	10,694	Moslem, England	13,205	Nan-ning, China	37,000
Minas de Rio Tinto, Spain	11,603	Montargis, France	13,104	Moslem, England	13,205	Nanpara, India	10,601
Minden, Germany	26,454	Montauban (Tarn-et-Gar-		Moslem, England	13,205	Nanterre, France	17,434
Minervino Murge, Italy,		onne), France	30,506	Moslem, England	13,205	Nantes, France	170,535
(com.)	19,325	Montebellard, France	10,455	Moslem, England	13,205	Nantyglo and Blaina, Eng-	
Minglanilla, Philippine Is-		Montceau les Mines,		Moslem, England	13,205	land	15,395
lands	10,518	France	26,305	Moslem, England	13,205	Napier, New Zealand	10,537
Minia (Minieh), Egypt	27,221	Mont-de-Marsan, France	11,923	Moslem, England	13,205	Naples, Italy, (com.)	678,031
Minsha, Egypt	10,810	Montebelluna, Italy, (com.)	11,970	Moslem, England	13,205	Nara, Japan	32,732
Minsk, Russia	105,500	Monte Carlo, Monaco	9,627	Moslem, England	13,205	Narasapuram, India	10,589
Minusinsk, Siberia	12,000	Monteleone, Italy, (com.)	13,066	Moslem, England	13,205	Narasapur, India	10,279
Mira, Italy, (com.)	15,579	Montélimar, France	13,554	Moslem, England	13,205	Narayanganj, India	24,472
Miragoane, Haiti, (com.)	18,000	Montepulciano, Italy,		Moslem, England	13,205	Narayanpet, India	12,011
Miraj, India	18,425	comerey, Mexico	11,994	Moslem, England	13,205	Narbonne, France	27,039
Mirandola, Italy, (com.)	16,740	Monterea, Colombia	81,006	Moslem, England	13,205	Nardó, Italy, (com.)	16,567
Mirano, Italy, (com.)	11,577	Monte San Giuliano, Italy,		Moslem, England	13,205	Nargund, India	10,416
Mirebalais, Haiti, (com.)	25,000	(com.)	28,664	Moslem, England	13,205	Narni, Italy, (com.)	12,943
Mirkfeld, England	11,712	Monte Sant' Angelo, Italy,		Moslem, England	13,205	Naro, Italy, (com.)	13,802
Mirgorod, Russia	13,800	(com.)	23,012	Moslem, England	13,205	Narsinghpur, India	11,233
Mirpolyle, Russia	11,100	Montespetoli, Italy,		Moslem, England	13,205	Narva, Russia	19,000
Mirzapur, India	79,862	(com.)	11,952	Moslem, England	13,205	Narvacán, Philippine Is-	
Mislimeri, Italy, (com.)	11,875	Montevarche, Italy, (com.)	12,952	Moslem, England	13,205	lands	19,575
Miskolcz, Hungary	51,459	Montevideo, Uruguay*	377,994	Moslem, England	13,205	Nasik, India	21,490
Misterbianco, Italy, (com.)	10,952	Montevideo, Uruguay		Moslem, England	13,205	Nasirabad (in Bombay),	
Mistretta, Italy, (com.)	13,608	Belgium	21,748	Moslem, England	13,205	India	12,176
Mitau (Mitava), Russia	39,200	Montigny, Germany	14,017	Moslem, England	13,205	Nasirabad (in E. Bengal	
Mit Ghamr and Kafr el		Montilla, Spain	13,623	Moslem, England	13,205	and Assam), India	14,688
Batal, Egypt	15,118	Montluçon, France	33,799	Moslem, England	13,205	Nasirabad (in Rajputana),	
Mitho (Mytho), French		Montoro, Spain	14,590	Moslem, England	13,205	India	22,494
Indo-China	17,200	Montpellier, France	80,230	Moslem, England	13,205	Naso, Italy, (com.)	* 11,748
Mito, Japan	38,435	Montreuil, France	43,213	Moslem, England	13,205	Nassau, Bahama Islands	12,500
Mitrowitz (Mitrovica),		Montrose, Scotland	10,973	Moslem, England	13,205	Natal, Brazil	16,000
Hungary	12,909	Montrouge, France	19,261	Moslem, England	13,205	Naumburg (on-the-Saale),	
Mitterburg (Pisano), Aus-		Mont-Saint-Amand, Bel-		Moslem, England	13,205	Germany	26,962
tralia	17,500	gium	16,260	Moslem, England	13,205	Navotas, Philippine Islands	11,688
Mittweida, Germany	17,800	Monza, Italy, (com.)	53,214	Moslem, England	13,205	Nasvati, India	21,451
Mixcoac, Mexico	21,812	Mór, Hungary	10,206	Moslem, England	13,205	Nawabganj, India	17,016
Miyakonooji, Japan	10,208	Moradabad, India	81,168	Moslem, England	13,205	Nawalgarh, India	12,315
Miyask, Russia	18,000	Morar, India	19,179	Moslem, England	13,205	Nawanagar (Nowanag-	
Moabual, Philippine Is-		Moratala, Spain	12,700	Moslem, England	13,205	gur), India	53,844
lands	11,743	Morecambe, England	12,131	Moslem, England	13,205	Nazareth (in Pernambuco),	
				Moslem, England	13,205	Brazil	10,000

Pamiers, France	10,449	Pelotas, Brazil	45,000	Pirano, Austria	15,400	Porto Novo, Dahomey*	19,100
Pamplona, Spain	30,350	Pembroke, Ireland	29,260	Piriatin, Russia	10,400	Porto Novo, India	13,712
Panama, Panama*	37,500	Pembroke, Wales	15,673	Pirasmens, Germany	38,463	Porto Praya, Cape Verde	
Panay, Philippine Islands	14,361	Penang (Georgetown),		Pirna, Germany	19,525	Islands*	21,500
Pancsova, Hungary	20,808	Straits Settlements	94,086	Pitapur, India	14,119	Porto Tolle, Italy, (com.)	10,853
Pandan, Philippine Islands	12,162	Penarth, Wales	15,488	Pirot, Servia	10,737	Port Said, Egypt	49,884
Panderman, Turkey in Asia	20,000	Penedo, Brazil	16,000	Pisa, Italy, (com.)	65,232	Pozzomonte, England	231,141
Pandharpur, India	32,405	Penge, England	22,330	Pisano (Mitterburg), Aus-		Posarevatz (Passarowitz),	
Panihati, India	11,178	Penonomé, Panama	10,897	tria	17,500	Servia	13,613
Panipat, India	26,914	Pensa (Penza), Russia	97,506	Pisek, Austria	16,500	Posen, Germany	156,691
Paniqui, Philippine Islands	12,982	Penzance, England	13,478	Pistoia (Pistoia), Italy,		Pötsneck, Germany	12,430
Panjim (Nova Goa), Por-		Peremysl, (Przemysl),		(com.)	67,502	Potenza, Italy, (com.)	16,624
tuguese India	10,000	Austria	54,078	Pitesti (Pitesc), Rou-		Potosi, Bolivia	25,000
Pankow, Germany	45,165	Pereslavl, Russia	12,100	mania	16,100	Pototan, Philippine Islands	20,919
Panna, India	11,346	Pergamos (Bergama), Tur-		Pithapuram, India	13,220	Potsdam, Germany	62,243
Panruti, India	15,206	key in Asia	25,000	Piura, Peru	12,000	Póvoa de Varzim, Portugal	12,700
Panteg, England	10,098	Perigueux, France	33,548	Plainpalais, Switzerland	30,016	Pozoblanco, Spain	12,792
Pantin, France	36,359	Periyakulam, India	17,960	Plana, Germany	121,272	Pozorubio, Philippine Is-	
Panvel, India	10,152	Perm, Russia	62,000	Plevna, Bulgaria	23,049	lands	11,018
Paoy, Philippine Islands	12,743	Pernambuco (Recife),		Plock, Russia	30,784	Pozsony (Pressburg), Hung-	
Paoting (Pao-ting), China	20,000	Brazil	250,000	Ploiesti (Ploieschi), Rou-		mania	78,223
Pápa, Hungary	20,150	Pernau, Russia	14,000	mania	56,594	Pozzuoli, Italy, (com.)	28,167
Pará (Belem), Brazil	250,000	Perpignan, France	39,510	Plymouth, England	112,030	Praduro e Sasso, Italy,	
Paraguay, Paraguay	10,000	Perth, Australia	34,000	Pnom Penh, French Indo-		(com.)	11,131
Parahiba (Parahyba), Bra-		Perth, Australia (with		China	62,225	Prague, Austria	223,741
zil	29,000	suburbs)	111,400	Podgoritz, Montenegro	10,053	Prahan, Austria	25,489
Paramagudi, India	16,134	Perth, Scotland	35,851	Podgorze, Austria	22,322	Prang, India	10,235
Paramaribo, Dutch		Perugia, Italy, (com.)	65,805	Point de Galla (Galla),		Prato, Italy, (com.)	56,709
Guiana	34,459	Pesaro, Italy, (com.)	27,397	Ceylon	40,187	Prezlau, Germany	21,386
Paraná, Argentina	35,857	Pescia, Italy, (com.)	17,882	Pointe-à-Pitre, Guade-		Prerau, Austria	20,669
Paranáguá, Brazil	15,008	Pescina, Italy, (com.)	10,319	loupe, W. Indies	16,500	Pressburg, (Pozsony),	
Pararchim, Germany	20,419	Peshawar, India	97,935	Poitiers, France	41,242	Hungary	78,223
Paradubitz, Austria	10,608	Peterborough, England	33,578	Pola, Austria	58,081	Preston, in Lancaster,	
Parenzo, Austria	12,400	Peterhead, Scotland	13,613	Polistena, Italy, (com.)	11,195	England	117,088
Paris, France*	2,888,110	Peterhof, Russia	11,300	Pollokshaws, Scotland	12,932	Prestwich, England	17,195
Parlakimedi, India	17,336	Petersham, Australia	20,407	Polotsk-Ostran, Austria	22,892	Pretoria, Transvaal, Union	
Parma, Italy, (com.)	51,910	Pétionville, Haiti, (com.)	2,500	Polotsk, Russia	31,100	of South Africa*	48,609
Parma, Brazil	15,000	Petalid, India	15,282	Poltava, Russia	83,856	Pribram, Austria	13,579
Parola, India	13,468	Petralia Sottana, Italy,		Pomigiano d'Arco, Italy,		Priego de Córdova, Spain	16,904
Parral, Chile	10,000	(com.)	10,506	(com.)	11,187	Prilip (Perlepe), Servia	21,783
Parral (Hidalgo del), Mex-		Petrograd (St. Petersburg),		Ponce, Porto Rico	35,027	Priluki, Russia	31,504
ico	14,748	Russia	2,018,596	Pondicherry, French India*	47,593	Princenhage, Netherlands,	
Parrott, Australia	12,520	Petrokoff (Piotrook),		Poneyvesh, Russia	12,800	(com.)	10,876
Parotanna, Italy, (com.)	14,122	Russia	41,200	Ponnani, India	10,562	Prisrend, Servia	21,244
Partick, Scotland	66,848	Petropavlosk, Russia in		Ponta Delgada, Azores	17,675	Pristina, Servia	18,174
Partino, Italy, (com.)	21,656	Asia	43,393	Pontá-Mousson, France	13,543	Proddattur, India	14,370
Parvatipuram, India	17,308	Petropolis, Brazil	39,700	Pontassieve, Italy, (com.)	11,892	Prome, India	27,311
Pasco (Cerro de Pasco),		Petrovsk, Russia	18,157	Pontecorvo, Italy, (com.)	13,399	Proskuf, Russia	40,611
Peru	15,000	Petrozavodsk, Russia	15,420	Pontedera, Italy, (com.)	12,949	Prossnitz, Austria	31,162
Pasewalk, Germany	10,916	Petuna (Boduno), Man-		Pontefract, England	15,499	Prussian Stargard, Ger-	
Pásig, Philippine Islands	11,278	churia	29,500	Pontevédra, Spain	24,222	many	10,419
Paso Molino, Uruguay	14,495	Pfersee, Germany	10,928	Pontianak, West Borneo	20,984	Przemysl (Peremysl),	
Passarowitz (Posarevatz),		Pforzheim, Germany	69,082	Ponticelli, Italy, (com.)	11,185	Austria	54,078
Servia	13,613	Pfhwara, India	14,108	Pontremoli, Italy, (com.)	14,409	Pskof, Russia	35,000
Passau, Germany	20,983	Phalodi, India	13,924	Pontypridd, Wales	43,211	Puchau, China	36,000
Pasto, Colombia	27,760	Philippville, Algeria,		Poole, England	38,885	Pudsey, England	14,023
Patan (Pattan, Puttun),		(com.)	27,137	Poona, India	158,586	Pudukkottai, India	20,343
India	31,402	Philippopolis, Bulgaria	47,981	Poonamallee, India	15,323	Puebla, Mexico	101,217
Patan (Putun), Nepal	30,000	Piacenza, Italy, (com.)	38,542	Popayan, Colombia	20,000	Pueblo Nuevo del Mar,	
Paternò, Italy, (com.)	28,923	Piatigorsk, Russia	31,800	Poperinghe, Belgium	11,307	Spain	11,258
Patiala, India	53,545	Piazza, Roumania	18,795	Porbandar, India	24,620	Puenteerás, Spain	13,452
Patna, India	136,153	Piazza Armerina, Italy,		Pordenone, Italy, (com.)	16,265	Fuente Genil, Spain	12,956
Patras, Greece	37,724	(com.)	32,070	Portadown, Ireland	11,727	Puerto Cabello, Venezuela	14,000
Pattan (Patan, Puttun),		Pietermaritzburg, Natal,		Portalegre, Portugal	11,603	Puerto de Santa Maria,	
India	31,402	Union of South Africa	30,593	Port Arthur, Manchuria	88,554	Spain	20,120
Patti, Italy, (com.)	10,535	Pietraperzia, Italy, (com.)	11,862	Port au Prince, Haiti*	100,000	Puerto Plata, Dominican	
Pâturages, Belgium	11,653	Pietrasanta, Italy, (com.)	19,868	Port Blair, Andaman Is-		Republic	10,000
Pau, France	37,149	Pilao Arcado, Brazil	10,000	lands	19,000	Puerto Principe (Cama-	
Paugde, India	11,105	Pilibhit, India	33,490	Port de Paix, Haiti	10,000	guyey), Cuba	73,284
Pavia, Italy, (com.)	39,898	Pilsen, Austria	80,343	Port Elizabeth, N at a l,		Puerto Real, Spain	11,943
Pavlograd, Russia	40,484	Pinamungajan, Philippine		Union of South Africa	30,539	Puket, Siam	179,600
Pavullo (in Emilia), Italy,		Islands	11,435	Port Glasgow, Scotland	17,749	Pultusk, Russia	17,500
(com.)	12,204	Pinar del Rio, Cuba	10,658	Portici, Italy, (com.)	17,009	Punakha, Bhutan*	00,000
Paysandú, Uruguay	22,000	Pind Dadan Khan, India	13,770	Portland, England	17,011	Punata, Bolivia	16,000
Pazza Armerina, Italy,		Pinerolo, Italy, (com.)	19,325	Port Louis, Mauritius*	50,060	Puno, Peru	10,000
(com.)	32,070	Pinguente, Austria	17,150	Port Mahon, Spain	18,000	Punta Arenas, Chile	12,199
Pécs (Fünfkirchen), Hun-		Ping-yang, China	18,000	Port Melbourne, Australia	13,471	Punta Arenas, Costa Rica	12,754
gary	49,822	Ping yang, Chosen (Korea)	75,000	Porto Alegre, Brazil	130,000	Puri, India	49,334
Pécska, Hungary	17,484	Pinsk, Russia	37,000	Porto Calvo, Brazil	25,000	Puriscal, Costa Rica	11,900
Peddapuram, India	12,609	Piombino, Italy, (com.)	19,660	Porto Empedocle, Italy,		Purnea, India	14,007
Pegli, Italy, (com.)	10,560	Piotrkof (Petrokoff),		(com.)	12,679	Purulia, India	17,291
Pegu, India	14,132	Russia	37,000	Port of Spain, Trinidad*	59,796	Purwa, India	10,260
Peine, Germany	16,667	Pieve di Sacco, Italy, (com.)	11,371	Portogruaro, Italy, (com.)	12,394	Púspök-Ladány, Hungary	10,888
Peking, China*	750,000	Piracabira, Brazil	25,400	Porto Maggiore (in Emilia),		Puteaux, France	32,223
Pelago, Italy, (com.)	12,65	Piraeus, Greece	73,579	Italy, (com.)	21,114	Putignano, Italy, (com.)	14,362

Püttlingen, Germany.....	16,757	Ratibor, Germany.....	33,424	Rio Grande do Sul, Brazil	40,000	Rueil, France.....	12,437
Puttun (Patan, Pattan), India.....	31,402	Ratingen, Germany.....	13,143	Riom, France.....	10,627	Rufisque, Senegal.....	12,500
Putvi, Russia.....	11,700	Ratisbon (Regensburg), Germany.....	52,624	Rionero, Italy, (com.).....	10,863	Rugby, England.....	21,758
Pyatigorsk, Russia.....	18,657	Ratlam (Rutlam), India.....	36,321	Rio Pardo, Brazil.....	22,500	Ruma, Hungary.....	10,300
Pyinmana, India.....	14,388	Ratnagiri, India.....	16,094	Ripley, England.....	11,848	Rumburg, Austria.....	10,565
Pyrgos, Greece.....	13,690	Ravanusa, Italy, (com.).....	15,330	Risca, England.....	14,149	Rummelsburg, Germany.....	51,492
Qaliub, Egypt.....	16,798	Ravenna, Italy, (com.).....	71,581	Rivarolo, Italy (com.).....	22,052	Runcorn, England.....	17,353
Qanayat, Egypt.....	10,358	Ravensburg, Germany.....	15,594	Rive-de-Gier, France.....	15,567	Rupprechtsau, Germany.....	10,056
Qena (Keneh), Egypt.....	20,069	Rawalpindi, India.....	86,483	Rivera, Uruguay.....	10,000	Rusera, India.....	10,245
Qorlin, Egypt.....	11,227	Rawarska, Austria.....	10,448	Rixdorf (New Kölln), Germany.....	237,289	Rushden, England.....	13,354
Quaregnon, Belgium.....	17,013	Rawitsch, Germany.....	11,525	Rochester (in Kent), England.....	31,384	Rustak, Afghanistan.....	10,000
Quedlinburg, Germany.....	21,223	Rawmarsh, England.....	17,185	Rode, France.....	10,000	Rustchuk, Bulgaria.....	36,255
Queluz, Brazil.....	10,000	Rawtenstall, England.....	30,516	Roanne, France.....	36,697	Rute, Spain.....	10,800
Queretaro, Mexico.....	33,922	Raybad, India.....	10,488	Rocha, Uruguay.....	12,200	Rutherford, Scotland.....	24,411
Quetta, India.....	13,000	Razampeta, India.....	15,287	Rochdale, England.....	91,428	Rutlam (Ratlam), India.....	36,321
Quezaltenango, Guatemala.....	24,000	Reading, England.....	75,198	Rochefort, France.....	36,694	Ruvo di Puglia, Italy, (com.).....	26,305
Quetzaltenango, Salvador.....	14,000	Reckanati, Italy, (com.).....	15,163	Rochelle, La, France.....	36,371	Ryazan, Russia.....	41,483
Quillota, Chile.....	11,449	Recklinghausen, Germany.....	53,701	Rochester (in Kent), England.....	31,384	Rybnik, Russia.....	31,500
Quilon, India.....	15,691	Redcar, England.....	10,508	Rode-sur-Yon, La, France.....	13,685	Rybnik, Germany.....	11,656
Quimper, France.....	19,516	Redditch, England.....	15,463	Rockhampton, Australia.....	15,451	Ryde, England.....	10,608
Quistell, Italy, (com.).....	13,151	Redfern, Australia.....	24,275	Rödelheim, Germany.....	10,067	Rylsk, Russia.....	13,200
Quito, Ecuador*.....	60,000	Redondela, Spain.....	10,900	Rodez, France.....	15,502	Ryton, England.....	12,948
Quixeramobim (Campo Mayor), Brazil.....	13,155	Redruth, England.....	10,814	Rodosto, Turkey.....	40,000	Rzeszów, Austria.....	23,688
Qus, Egypt.....	14,355	Reducto, Uruguay.....	16,666	Roormond, Netherlands, (com.).....	13,566	Saalfeld, Germany.....	14,347
Raab (Győr), Hungary.....	44,300	Regaluto, Italy, (com.).....	12,948	Rogatchef, Russia.....	10,570	Saarbrücken, Germany.....	105,089
Rabat, Morocco.....	34,000	Regello, Italy, (com.).....	13,566	Rohlinghausen, Germany.....	13,275	Saarburg, (in Alsace-Lorraine), Germany.....	10,019
Racaluto, Italy, (com.).....	14,298	Regensburg (Ratisbon), Germany.....	52,624	Rohltak, India.....	20,323	Saargemünd, Germany.....	15,384
Radatz, Austria.....	16,568	Reggio di Calabria, Italy, (com.).....	43,162	Rokko, Formosa, Japan.....	19,036	Saarlouis, Germany.....	15,364
Radhiffe, England.....	26,084	Reggio nell' Emilia, Italy, (com.).....	70,419	Roman, Roumania.....	16,525	Saaz, Austria.....	17,127
Radeberg, Germany.....	13,413	Regla, Cuba.....	11,363	Romans, France.....	17,622	Sabadell, Spain.....	28,263
Radebeul, Germany.....	11,402	Reichenbach (in Prussian Silesia), Germany.....	16,371	Romblón, Philippine Islands.....	10,093	Sabará, Brazil.....	50,000
Radevormwald, Germany.....	11,541	Reichenbach (in Saxony), Germany.....	29,685	Rome, Italy*.....	542,125	Sablon, Germany.....	10,720
Radhanpur, India.....	11,879	Reichenberg, Austria.....	36,350	Romford, England.....	16,973	Sacaba, Bolivia.....	18,000
Radom, Russia.....	49,200	Reigate, England.....	28,502	Romny, Russia.....	33,264	Saddleshorth, England.....	12,603
Radomsk, Russia.....	15,800	Reikiavik (Reikjavik), Iceland.....	11,593	Ronda, Spain.....	22,692	Safed, Turkey in Asia.....	20,000
Radomyśl, Russia.....	15,804	Reims (Rheims), France.....	115,178	Ronsdorf, Germany.....	15,365	Safi (Safi), Morocco.....	24,347
Radzionkau, Germany.....	10,272	Reinickendorf, Germany.....	34,299	Roorkee, India.....	17,197	Sagaing, India.....	10,000
Raffadali, Italy, (com.).....	11,743	Reilinghausen, Germany.....	14,297	Rosendaal (Rozenaal), Netherlands, (com.).....	16,716	Sagan, Germany.....	15,063
Rafusa, Austria.....	14,300	Rembang, Java.....	14,500	Rorschach, Switzerland.....	12,707	Sagar (Sangor), India.....	42,330
Ragusa, Italy, (com.).....	37,543	Remiremont, France.....	10,548	Rosario, Argentina.....	219,677	Sagua la Grande, Cuba.....	12,890
Rai Bareilly, India.....	15,880	Remscheid, Germany.....	72,159	Rosario, Uruguay.....	10,682	Saharanpur, India.....	66,234
Raichur, India.....	20,163	Renaix, Belgium.....	22,303	Rosdzin, Germany.....	12,419	Sahaswan, India.....	18,004
Raikot, India.....	10,131	Rendsburg, Germany.....	17,314	Rosendael, France.....	12,016	Sahatwar, India.....	10,784
Raipur, India.....	32,118	Renfrew, Scotland.....	12,565	Rosetia, Egypt.....	15,669	Sahuayo, Mexico.....	10,580
Rajahmundry, India.....	36,404	Rennes, France.....	79,372	Rosignano Marittimo, Italy, (com.).....	16,810	Saidapet, India.....	18,000
Rajapalayam, India.....	25,360	Replen Baer, Germany.....	12,841	Roslin, Russia.....	10,210	Saigon, French Indo-China.....	190,000
Rajgarh (in Rajputana), India.....	11,008	Requena, Spain.....	16,300	Rosolino, Italy, (com.).....	19,000	Saint Albans, England.....	18,133
Rajkot, India.....	36,151	Reschitz, Hungary.....	16,150	Rossano, Italy, (com.).....	10,373	Saint-Amand, France.....	14,451
Rajpur (in Bengal), India.....	10,263	Resht, Persia.....	42,000	Rossberg, Germany.....	12,974	Saint-Brieuc, France.....	23,041
Ramgarh (in Jaipur), India.....	11,024	Resicabánya, Hungary.....	15,000	Rostock, Germany.....	20,021	Saint-Chamond, France.....	14,430
Ramjibanpur, India.....	19,724	Resina, Italy, (com.).....	20,508	Rostof (in Yaroslavl), Russia.....	65,383	Saint-Claude, France.....	10,980
Ramleh, Egypt.....	10,860	Reus, Spain.....	25,196	Rosloft (in Yaroslavl), Russia.....	14,000	Saint-Denis (Seine), France.....	71,759
Rammacca, Italy (com.).....	10,820	Reutlingen, Germany.....	29,763	Rosloft-on-the-Don, Russia.....	17,275	Saint Denis, Réunion Is-land*.....	30,000
Ramnad, India.....	14,546	Reval, Russia.....	99,000	Roszlau, Germany.....	11,354	Saint-Dié, France.....	22,136
Ramnagar (United Provinces), India.....	74,316	Rewah, India.....	24,608	Rotherham, England.....	62,483	Saint-Dizier, France.....	14,661
Rampur (United Provinces), India.....	21,589	Rewari, India.....	27,295	Rothwell, England.....	14,277	Saintes, France.....	19,025
Rampur Boalia, India.....	15,146	Rheden, Netherlands, (com.).....	18,432	Rotterdam, Netherlands, (com.).....	417,989	Saint-Etienne, France.....	148,656
Ramsbottom, England.....	29,603	Rheims (Reims), France.....	115,178	Rotthausen, Germany.....	25,757	Saint Gallen, Switzerland.....	37,869
Ramsgate, England.....	25,707	Rheine, Germany.....	14,415	Roubaix, France.....	122,723	Saint-Germain-en-Laye, France.....	17,288
Ranchi, India.....	25,707	Rheydt, Germany.....	43,999	Rouen, France.....	124,987	Saint-Gilles, Belgium.....	63,140
Randazzo, Italy, (com.).....	13,709	Rhodes, Island of Rhodes.....	10,000	Roulers, Belgium.....	25,026	Saint Helens, England.....	96,551
Rander, India.....	10,478	Rhonda, Wales.....	152,781	Roux, Belgium.....	10,062	Saint-Helier, Jersey Island.....	32,000
Randers, Denmark.....	22,970	Rhymney, England.....	11,449	Roveredo, Austria.....	11,680	Saint-Josse-ten-Noode, Belgium.....	31,865
Randwick, Australia.....	15,793	Ribeirão Preto, Brazil.....	20,000	Rovigno, Austria.....	12,350	Saint-Junien, France.....	11,400
Ranenbun, Russia.....	203,316	Ribera, Italy, (com.).....	11,141	Rovno, Russia.....	39,100	Saint Kilda, Australia.....	25,449
Rangoon, India.....	15,960	Richmond, Australia.....	38,559	Rowley Regis, England.....	37,000	Saint-Lô, France.....	12,181
Rangpur, India.....	14,851	Richmond, England.....	33,221	Royal Leamington Spa (Leamington), England.....	26,888	Saint Louis, Réunion Is-land.....	12,900
Raniganj, India.....	15,841	Richtrath-Reusath, Germany.....	12,440	Royton, England.....	17,069	Saint Louis, Senegal*.....	25,000
Rasgrad Bulgaria.....	13,975	Riesa, Germany.....	15,287	Rozendaal (Roosendaal), Netherlands, (com.).....	16,716	Saint Louis du Nord, Haiti.....	16,100
Rasipur, India.....	11,512	Riesi, Italy, (com.).....	17,163	Rozsahygy, Hungary.....	12,249	Saint-Malo, France.....	10,647
Rastatt, Germany.....	15,196	Rieti, Italy, (com.).....	17,520	Rshev, Russia.....	24,000	Saint-Mandé, France.....	17,714
Rastenburg, Germany.....	11,945	Riga, Russia.....	370,100	Ruda, Germany.....	14,163	Saint Marc, Haiti.....	20,000
Ratangarh, India.....	11,744	Rimini, Italy, (com.).....	50,862	Rudauli, India.....	11,708	Saint-Maur-des-Fosses, France.....	33,852
Rath, Germany.....	14,924	Rio de Janeiro, Brazil.....	1,128,637	Rudolstadt, Germany.....	12,937		
Rath, India.....	11,424						
Rathenow, Germany.....	24,891						
Rathmines and Rathgar, Ireland.....	38,190						

Saint-Nazaire, France.....	38,267	Sandakan, British North Borneo*.....	10,000	San Pier d' Arena, Italy, (com.).....	42,421	Saronno, Italy, (com.).....	12,300
Saint-Nicolas, Belgium.....	34,774	Sandec (Neu), Austria.....	19,350	San Remo, Italy, (com.).....	72,987	Sarria, Spain.....	11,959
Saint-Omer, France.....	20,993	Sandila, India.....	16,843	San Roque, Spain.....	22,645	Sarzana, Italy, (com.).....	12,631
Saint-Ouen, France.....	41,904	San Dona di Piave, Italy, (com.).....	13,231	Sans, Spain.....	19,110	Sasaram, India.....	23,644
Saint Paul de Loanda (Loanda), Angola*.....	20,156	San Fabian, Philippine Islands.....	10,022	San Salvador, Salvador*.....	53,140	Sasebo, Japan.....	93,051
Saint-Paul, Réunion Island.....	20,000	San Felipe, Chile.....	14,445	Sansanding, French Sudan.....	42,000	Sassari, Italy, (com.).....	43,118
Saint Peterport (Saint Pierre), Channel Islands.....	18,300	San Feliu de Guixols, Spain.....	11,338	San Sebastian, Spain.....	50,269	Sassoferato, Italy, (com.).....	11,077
Saint Petersburg (Petrograd), Russia*.....	2,018,596	San Fernando, Chile.....	10,460	San Severino, Italy, (com.).....	13,699	Satara, India.....	26,022
Saint-Pierre, Réunion Island.....	30,000	San Fernando (in Cebu), Philippine Islands.....	15,451	San Severo, Italy, (com.).....	32,202	Satoralja-Ujhely, Hungary.....	19,940
Saint-Pierre Quilbignon, France.....	10,943	San Fernando (in La Union), Philippine Islands.....	16,095	Sansing, China.....	13,000	Saumur, France.....	16,397
Saint-Pölten, Austria.....	21,805	San Fernando (in Pam-panga), Philippine Islands.....	13,556	Santa Ana, Salvador.....	54,912	Savignano (in Cuneo), Italy, (com.).....	17,600
Saint-Quentin, France.....	55,571	San Fernando, Spain.....	28,300	Santa Bárbara (in Iloilo), Philippine Islands.....	15,149	Savona, Italy, (com.).....	50,169
Saint-Servan, France.....	12,242	San Fratello, Italy, (com.).....	10,424	Santa Bárbara (in Pangasinan), Philippine Islands.....	10,367	Sawai, India.....	10,328
Saint Thomas (Charlotte Amalie), Danish West Indies.....	8,248	Sangamner, India.....	13,801	Santa Clara, Cuba.....	16,705	Scafati, Italy, (com.).....	14,092
Saint Thomas' Mount, India.....	15,571	Sangerhausen, Germany.....	12,048	Santa Cruz, Bolivia.....	21,000	Scandiano, Italy, (com.).....	10,897
Saint-Trond, Belgium.....	15,647	San Gil (Sanjil), Colombia.....	10,000	Santa Cruz (in La Laguna), Philippine Islands.....	12,747	Scarborough, England.....	37,201
Sakai, Japan.....	61,103	San Gimignano, Italy, (com.).....	10,365	Santa Cruz (in Marinduque), Philippine Islands.....	16,350	Scarbath (Shabats), Servia.....	12,201
Sakata, Japan.....	23,513	San Giovanni a Teduzzio, Italy, (com.).....	22,504	Santa Cruz del Quiché, Guatemala.....	12,000	Schaerbeek, Belgium.....	82,480
Salaam (Dar-es), German East Africa*.....	22,215	San Giovanni Fiore, Italy, (com.).....	12,500	Canary Islands.....	63,004	Schaffhausen, Switzerland.....	18,101
Salaga, Gold Coast.....	10,000	San Giovanni Persiceto, Italy, (com.).....	17,087	Santa Fé, Argentina.....	50,000	Scharley, Germany.....	11,009
Salama, Guatemala.....	11,000	San Giovanni Rotondo, Italy, (com.).....	10,313	Santa María (in Bulacán), Philippine Islands.....	10,791	Schässburg (Segesvár), Hungary.....	11,587
Salamanca, Mexico.....	13,497	San Giuseppe Vesuviano, Italy, (com.).....	10,647	Santa María (in Ilocos Sur), Philippine Islands.....	10,082	Schemnitz, Hungary.....	15,185
Salamanca, Spain.....	29,830	Sangli, India.....	16,829	Santa Maria Capua Vetere, Italy, (com.).....	21,520	Schiedam, Netherlands, (com.).....	32,024
Salamia, Egypt.....	10,280	Sangrur, India.....	11,852	Santander, Spain.....	65,046	Schillingheim, Germany.....	16,761
Salas, Spain.....	17,200	San Joaquin, Philippine Islands.....	14,333	Sant'Antino, Italy, (com.).....	10,279	Schleswig, Germany.....	19,908
Sale, England.....	15,044	San José, Costa Rica*.....	33,000	Sant'Arcangelo di Romagna, Italy, (com.).....	10,191	Schlettstadt, Germany.....	10,604
Sale, Morocco.....	15,550	San José, Uruguay.....	12,297	Santarem, Brazil.....	16,500	Schmalkalden, Germany.....	10,018
Salem, India.....	70,621	San José de Cutata, Colombia.....	10,000	Santa Rosa, Honduras.....	10,888	Schmölln, Germany.....	11,345
Salemi, Italy, (com.).....	18,639	San Juan, Argentina.....	15,262	Santeramo in Colle, Italy, (com.).....	14,641	Schneidemühl, Germany.....	26,126
Salerno, Italy, (com.).....	45,689	San Juan, Philippine Islands.....	11,223	Santiago, Chile*.....	403,775	Schönberg (Mährisch-), Austria.....	11,650
Salford (in Lancashire), England.....	231,357	San Juan, Porto Rico*.....	48,716	Santiago, Dominican Republic.....	12,000	Schönbrunn, Germany.....	26,546
Salgó-Tarján, Hungary.....	13,600	San Juan Bautista, Mexico.....	12,327	Santiago, Panama.....	13,081	Schönebeck, Germany.....	18,310
Salisbury, England.....	21,214	San Juan de Bocoboc, Philippine Islands.....	11,853	Santiago de Compostella, Spain.....	24,660	Schöneberg, Germany.....	172,823
Salon, France.....	14,050	Sankarayanayarkovil, India.....	16,775	Santiago de Cuba, Cuba.....	80,857	Schönefeld, Germany.....	14,879
Saloniki (Salonica), Greece.....	174,000	Sankt Ingbert, Germany.....	17,728	Santiago del Estero, Argentina.....	15,000	Schoterland, Netherlands, (com.).....	15,298
Salsomaggiore, Italy, (com.).....	12,456	Sankt Pölten, Austria.....	21,661	Santipur, India.....	26,898	Schramberg, Germany.....	11,267
Salta, Argentina.....	40,000	San Lazzaro Parmense, Italy, (com.).....	10,094	Santo Domingo, Dominican Republic.....	22,000	Schwabach, Germany.....	11,195
Saltillo, Mexico.....	35,414	San Lúcar de Barrameda, Spain.....	22,331	Santo Domingo, Philippine Islands.....	10,075	Schweidnitz, Germany.....	31,329
Salto, Uruguay.....	19,788	Samanaud, Egypt.....	14,408	Santos, Brazil.....	90,000	Schwefurt, Germany.....	22,194
Salur, India.....	16,239	Samar, Russia.....	145,568	San Vicente, Salvador.....	23,064	Schwelm, Germany.....	20,438
Saluzzo, Italy, (com.).....	15,979	Samarang, Java.....	96,660	San Vito dei Normanni, Italy, (com.).....	10,803	Schwenningen, Germany.....	15,411
Salvatierra, Mexico.....	10,262	Samaranda, Borneo.....	10,000	San Vito del Tagliamento, Italy, (com.).....	10,803	Schwerin, Germany.....	42,519
Salzburg, Austria.....	36,188	Samararkind, Russia in Asia.....	89,697	Sao Luiz (Maranhao), Brazil.....	40,000	Schwerte, Germany.....	00,000
Salzwedel, Germany.....	14,427	Sambalpur, India.....	12,870	São Paulo, Brazil.....	450,000	Schwientchowitz, Germany.....	16,167
Samalkot, India.....	16,015	Sambas, West Borneo.....	12,096	Sapporo, Japan.....	70,084	Sciaccia, Italy, (com.).....	21,482
Samana, India.....	10,209	Sambhal, India.....	39,715	Sara, Philippine Islands.....	11,366	Scunthorpe, England.....	10,170
Samanud, Egypt.....	14,408	Sambhar, India.....	10,873	Saragossa (Zaragoza), Spain.....	111,704	Scutari (Skutari), Albania*.....	30,000
Samar, Russia.....	145,568	Sambiase, Italy, (com.).....	10,259	Sarajevo (Bosna-Serai), Austria-Hungary.....	51,919	Scutari (Skutari), Turkey in Asia.....	80,000
Samarang, Java.....	96,660	Sambor (Zombor), Austria.....	20,557	Saransk, Russia.....	16,100	Seaham Harbour, England.....	15,757
Samarinda, Borneo.....	10,000	Samsun, Turkey in Asia.....	35,000	Sarapul, Russia.....	21,500	Sebastopol (Sevastopol), Russia.....	77,500
Samararkind, Russia in Asia.....	89,697	Sana, Turkey in Asia.....	20,000	Saratof, Russia.....	217,418	Sebenico, Austria.....	29,579
Sambalpur, India.....	12,870	San Angel, Mexico.....	16,734	Saravia, Philippine Islands.....	13,132	Sebnitz, Germany.....	11,406
Sambas, West Borneo.....	12,096	San Bartolomé, Mexico.....	14,700	Sarawak (Kuching), Sarawack*.....	18,000	Secondigliano, Italy, (com.).....	14,743
Sambhal, India.....	39,715	San Benedetto del Tronto, Italy, (com.).....	10,081	Sardarsahr, India.....	10,052	Secunderabad, India.....	83,550
Sambhar, India.....	10,873	San Benedetto Po, Italy, (com.).....	11,754	Sardhana, India.....	12,467	Sedan, France.....	19,599
Sambiase, Italy, (com.).....	10,259	San Carlos, Philippine Islands.....	27,166	Sariaya, Philippine Islands.....	12,453	Sedgely, England.....	16,527
Sambor (Zombor), Austria.....	20,557	San Carlos, Venezuela.....	10,000	Sarno, Italy, (com.).....	18,125	Segesvár (Schassburg), Hungary.....	11,587
Samsun, Turkey in Asia.....	35,000	San Casciano, Italy, (com.).....	14,991			Segovia, Spain.....	14,658
Sana, Turkey in Asia.....	20,000	San Cataldo, Italy, (com.).....	19,446			Segu (Sego), French West Africa.....	36,000
San Angel, Mexico.....	16,734	San Cristobal (in Chiapas), Mexico.....	13,745			Seicli, Italy, (com.).....	20,185
San Bartolomé, Mexico.....	14,700	Sancti Spiritus, Cuba.....	17,500			Selb, Germany.....	10,500
San Benedetto del Tronto, Italy, (com.).....	10,081					Sembien, India.....	17,567
San Benedetto Po, Italy, (com.).....	11,754					Sempalatinsk, Russia in Asia.....	35,132
San Carlos, Philippine Islands.....	27,166					Senia (Zimony), Hungary.....	17,131
San Carlos, Venezuela.....	10,000					Sendagaya, Japan.....	20,207
San Casciano, Italy, (com.).....	14,991					Sendai, Japan.....	97,944
San Cataldo, Italy, (com.).....	19,446					Senigallia, Italy, (com.).....	23,743
San Cristobal (in Chiapas), Mexico.....	13,745					Senji (Senju), Japan.....	22,765
Sancti Spiritus, Cuba.....	17,500					Sennures, Egypt.....	17,106
						Sens, France.....	15,007
						Sensuntepeque, Salvador.....	14,096
						Seohara, India.....	10,062
						Seoni, India.....	11,864

Seoul, Chosen (Korea),	217,391	Sidi-bel-Abbes, Algeria,		Soignies, Belgium	11,086	Steierdorf-Anina, Hungary	16,200
Seraing, Belgium	41,015	(com.)	30,942	Soissons, France	14,334	Steinamanger (Szombathe-	
Serampore, India	44,451	Sidon (Saïda), Turkey in		Sojat, India	11,107	ly), Hungary	30,947
Servavzeza, Italy, (com.)	11,376	Asia	18,000	Sojitra, India	10,578	Stendal, Germany	27,263
Seregno, Italy, (com.)	14,989	Siedlec (Syedlets), Russia	34,072	Sokal, Austria	10,000	Sterkrade, Germany	34,518
Serena, Chile	15,996	Siegburg, Germany	17,280	Solingen, Germany	50,536	Sterlitamak, Russia	18,175
Seres, Greece	50,000	Siegen, Germany	27,416	Solola, Guatemala	10,000	Stettin, Germany	14,601
Sergievsky Posad, Russia	27,000	Siemianowitz, Germany	18,336	Solothurn, Switzerland	11,688	Steyr, Austria	236,113
Sermadevi, India	13,474	Siema, Italy, (com.)	41,673	Soma, Nigeria	10,000	Stirling, Scotland	18,000
Serpukhof, Russia	36,200	Siero, Spain	25,605	Somma Vesuviano, Italy,			21,200
Sers el Layana, Egypt	15,453	Signack, Russia	10,755	(com.)	10,406	Stockholm, Sweden*	350,955
Sessa Aurunca, Italy,		Sihor, India	10,101	Sommerfeld, Germany	11,880	Stockport, England	108,682
(com.)	20,756	Sikandarabad, India	18,290	Sonamukhi, India	13,448	Stockton-on-Tees, England	52,154
Sesto Fiorentio, Italy,		Sikandra Rao, India	11,372	Sonderburg, Germany	10,042	Stoke-upon-Trent, Eng-	
(com.)	20,695	Sikar, India	21,523	Sonepat, India	12,990	land	234,534
Sesto San Giovanni, Italy,		Silao, Mexico	14,059	Sonneberg, Germany	15,878	Stolberg (near Aachen),	
(com.)	14,133	Silay, Philippine Islands	15,649	Sonson, Colombia	29,346	Germany	15,460
Sestri Ponente, Italy,		Silistria, Roumania	13,000	Sonsonate, Salvador	14,000	Stolp, Germany	33,762
(com.)	21,464	Silivri, Turkey	25,399	Sopron (Odenberg), Hun-		Stoppenberg, Germany	12,020
Setif, Algeria, (com.)	26,261	Simbellawein, Egypt	11,417	gary	33,932	Storozynetz, Austria	10,400
Settur, India	14,328	Simbirsks, Russia	64,000	Sora, Italy, (com.)	16,245	Stourbridge, England	17,312
Setubal, Portugal	24,687	Simferopol, Russia	69,670	Soran, Germany	18,019	Stralsund, Germany	33,988
Sevastopol (Sebastopol),		Simla, India	13,960	Soresina, Italy, (com.)	11,053	Strassburg, Germany	178,891
Russia	77,500	Simnan, Persia	16,000	Soroki, Russia	18,000	Straubenzell, Switzerland	15,305
Seville, Spain	158,287	Sinchau, China	16,000	Soron, India	12,174	Straubing, Germany	22,021
Sezze, Italy, (com.)	12,530	Sinder (Zinder), French		Sorrento, Italy, (com.)	10,000	Stretford, England	42,946
Slax, Tunis	32,000	Sahara	10,000	Sorsogón, Philippine Is-		Striegau, Germany	14,587
Shadrinsk, Russia	12,000	Singan, China	500,000	lands	13,511	Stryl, Austria	30,942
Shahabad (United Prov-		Singapore, Straits Settle-		Sortino, Italy, (com.)	10,859	Stuhlweissenberg, Hungary	32,167
inces), India	20,036	ments	303,321	Sotteville (les-Rouen),		Stubielski, Russia	13,217
Shahjahanpur, India	76,458	Si-ning-fu, China	60,000	France	19,042	Stuttgart, Germany	286,218
Shajapur, India	10,000	Sinj, Austria	40,633	Soufi, Turkey	12,000	Suakin, Anglo-Egyptian	
Shanghai, China	651,000	Sinope, Turkey in Asia	11,000	Southall Norwood, Eng-		Sudan	12,000
Shao-hing, China	200,000	Siquajur, Philippine Islands	12,116	land	26,323	Suchau, China	500,000
Shao-king, China	20,000	Sijarjan, India	23,114	Southampton, England	19,012	Suchitoto, Salvador	15,144
Sha-shi, China	80,000	Sironj, India	10,417	South Bank in Normanby,		Süchteln, Germany	10,118
Shatsk, Russia	14,288	Sirsa (in Punjab), India	15,800	England	14,977	Sucre, Bolivia*	24,000
Shatut Damietta, Egypt	21,589	Sistova (Svichtov), Bul-		Southend on Sea, England	62,713	Suczawa, Austria	11,600
Shavli, Russia	16,000	garia	13,101	Southgate, England	33,612	Suez, Egypt	18,347
Shebas el Malh, Egypt	10,351	Sitapur, India	22,557	Southport, England	51,643	Suhl, Germany	14,468
Shechem (Nablus), Pales-		Siut (Assiut), Egypt	39,442	South Shields, England	108,647	Sukkur, India	31,316
tine	25,000	Sivagiri, India	18,150	Southwick (on Wear),		Suleimanieh, Turkey in Asia	30,000
Sheerness, England	17,487	Sivakasi, India	13,021	England	13,784	Sulmona, Italy, (com.)	18,535
Sheffield, England	454,632	Sivas, Turkey in Asia	72,080	South Yarra, Australia	10,060	Sülz, Germany	23,731
Shegaon, India	15,057	Siwan, India	15,756	Sowerby Bridge, England	11,350	Sulzbach, Germany	22,431
Sheikhpura, India	10,135	Skelton and Brotton, Eng-		Spaccaforte, Italy, (com.)	10,868	Sunny, Russia	51,545
Shemakha, Russia	21,500	land	15,194	Spalato, Austria	27,492	Sumam, India	10,069
Sherkot, India	14,999	Skien, Norway	11,870	Spalding, England	10,308	Sunderland, England	151,159
Shibata, Japan	12,800	Skjerniewice, Russia	11,900	Spandau, Germany	84,855	Sundsvall, Sweden	16,930
Shibin el Kum, Egypt	21,576	Skipton (in Yorkshire),		Spennymoor, England	17,909	Surabaya, Java	150,000
Shidzuoka, Japan	53,614	England	12,977	Speyer, Germany	23,045	Surakarta, Java	118,378
Shikarpur (in Bombay),		Skopin, Russia	15,000	Spezia, Italy, (com.)	73,599	Surat, India	11,810
India	49,491	Skopljë (Uskup), Servia	47,384	Spinazzola, Italy, (com.)	12,407	Surbiton, England	17,717
Shikarpur (in United Prov-		Skutari (Scutari), Albania*	30,000	Spoleto, Italy, (com.)	25,996	Suresnes, France	13,660
inces), India	12,249	Skutari (Sutari), Turkey		Spremberg, Germany	11,706	Susa, Tunis	12,000
Shikohabad, India	10,798	in Asia	80,000	Srinagar, India	126,344	Sutton, England	21,270
Shildon, England	13,488	Skvira, Russia	18,601	Srirangam, India	23,039	Sutton-in-Ashfield, Eng-	
Shimabara, Japan	18,125	Slagelse, Denmark	10,463	Srivakuntam, India	10,550	land	21,708
Shimonoseki (Akamagasaki),		Slatoust (Zlatoust), Russia	55,246	Srivilliputtur, India	26,382	Sutton-in-Coldfield, Eng-	
Japan	58,254	Sliebrecht, Netherlands,		Stabies, Italy, (com.)	33,951	land	20,132
Shinchiku (Hsin-Chu),		(com.)	11,045	Stad-Almeo, Netherlands,		Suwalki, Russia	33,000
Formosa, Japan	16,064	Sligo, Ireland	11,163	(com.)	10,387	Suzzara, Italy, (com.)	13,004
Shingu, Japan	10,600	Silvno, Bulgaria	25,142	Stade, Germany	11,078	Svendborg, Denmark	12,667
Shinjo, Japan	10,568	Slobodskoi, Russia	11,000	Stafford, England	23,383	Svenigorodka, Russia	21,000
Shibley, England	27,706	Slobochen, Netherlands,		Stalybridge, England	26,513	Swadlincote, England	18,674
Shiraz, Persia	45,000	(com.)	12,803	Stanimaka, Bulgaria	12,963	Swansea, Wales	114,663
Shokwa (Chang-Hua),		Slonim, Russia	16,000	Stanislaw, Austria	33,328	Swatow, China	66,000
Formosa, Japan	15,506	Slough, England	14,982	Stanley (in Durham),		Swindon, England	50,751
Sholapur, India	75,288	Slutsk, Russia	19,583	England	23,294	Swinemünde, Germany	13,914
Shoshi (Choshi), Japan	25,298	Smallerland, Nether-		Stanley (in Yorkshire),		Swinton, England	13,654
Shrewsbury, England	29,380	lands, (com.)	12,509	England	13,586	Swinton and Pendlebury,	
Shuia (Shuya), Russia	30,709	Smallthorne, England	13,559	Staraia, Russia	16,000	England	30,759
Shumla, Bulgaria	22,225	Smethwick, England	70,654	Stara-Zagora (Eski-Sagra),		Sydney, N. S. W., Australia	139,897
Shuri, Japan	25,141	Smolchov, Austria	51,791	Bulgaria	22,003	Sydney, with suburbs	636,353
Shusha, Russia	42,701	Smolensk, Russia	71,312	Stargard (in Pomerania),		Sylhet, India	13,893
Shuster, Persia	18,000	Smymna, Turkey in Asia	375,000	Germany	27,551	Syracuse, Italy, (com.)	40,587
Shwedang, India	10,787	Sneek, Netherlands, (com.)	13,007	Starodub, Russia	19,000	Syzran, Russia	46,233
Sialkot, India	57,956	Sniatyn, Austria	11,500	Starokonstantinov, Russia	18,475	Szabadka (Maria There-	
Siang-tan, China	1,000,000	Soatá, Colombia	10,000	Stary Oskol, Russia	19,000	siopel), Hungary	94,610
Siang-yang, China	50,000	Socorro, Colombia	12,000	Stassfurt, Germany	16,794	Szarvas, Hungary	25,775
Siazon, Philippine Islands	19,074	Söderhamn, Sweden	11,452	Stavanger, Norway	37,118	Szatmár-Németi, Hungary	34,892
Sibalom, Philippine Islands	12,461	Södertälje, Sweden	11,643	Stavropol (in Caucasia),		Szeged, Hungary	118,328
Sibofga, Philippine Islands	25,848	Soest, Germany	18,467	Russia	60,540		
Siderno, Italy, (com.)	11,492	Sofia, Bulgaria*	102,812	Steele, Germany	14,487		
Sidhpur, India	14,743	Sohag Town, Egypt	17,514	Steglitz, Germany	62,954		

Székelly Udvarbely, Hungary	10,244	Tangier, Morocco	46,270	Tessaua, French Sudan	12,000	Tonk, India	38,759
Székesfehérvár, Hungary	36,625	Tanjay, Philippine Islands	11,894	Tetela, Mexico	12,537	Toowoomba, Australia	16,161
Székesszentmárton, Hungary	15,497	Tanjore, India	60,340	Tetovo (Malkandele), Serbia	10,070	Tooda, Hungary	13,455
Szemad, China	14,000	Tanta, Egypt	54,437	Tetschen, Austria	10,501	Torgau, Germany	13,493
Sziget, Hungary	31,593	Tarabulus (Tripoli), Syria	48,000	Tétuan, Morocco	37,550	Török - Szent - Miklós, Hungary	21,881
Sziget (Máramaros-Sziget), Hungary	17,445	Taranto, Italy, (com.)	69,278	Thale, Germany	13,255	Torrey, England	38,771
Szolnok, Hungary	28,778	Tarante, France	12,180	Thana, India	16,011	Torre Annunziata, Italy, (com.)	31,324
Szombathely (Steinamanger), Hungary	30,947	Tarbes, France	25,869	Thaton, India	14,342	Torre del Greco, Italy, (com.)	36,608
Taal, Philippine Islands	17,525	Tarifa, Spain	11,723	Thayetmyo, India	15,824	Torredonjimeno, Spain	10,500
Taabo, Philippine Islands	21,945	Tarjaja, Bolivia	10,000	The Hague (Gravenhage), Netherlands* (com.)	271,280	Torre Maggiore, Italy, (com.)	12,721
Tablat, Switzerland	22,308	Tarikere, India	10,164	The Maldens and Combe, England	12,137	Torreón, Mexico	34,271
Tabor, Austria	11,958	Tárlac, Philippine Islands	12,340	The Pearl, South Africa	11,283	Torres Novas, Portugal	10,800
Tabora, German East Africa	40,000	Tarnopol, Austria	33,871	Therezina, Brazil	15,000	Torshok (Torzhok), Russia	15,800
Tabriz, Persia	200,000	Tarnow, Austria	36,731	Thielt, Belgium	11,780	Tortona, Italy, (com.)	19,935
Tacloban, Philippine Islands	11,948	Tarnowitz, Germany	13,582	Thiers, France	17,418	Tortorici, Italy, (com.)	11,253
Tacna, Chile	11,504	Tarragona, Spain	23,289	Thong-Yöng, Chosen (Korea)	12,024	Tortosa, Spain	27,455
Tacuba, Mexico	10,339	Tarrasa, Spain	21,986	Thorn, Germany	46,227	Torzhok (Torzhok), Russia	15,800
Tacubaya, Mexico	37,552	Tarsus, Turkey in Asia	25,000	Thornaby on Tees, England	18,603	Totana, Spain	13,703
Tadpatri, India	10,859	Tasgaon, India	10,975	Thourout, Belgium	10,981	Tottenham, England	137,418
Taganrog, Russia	68,400	Tashkend, Russia	271,665	Tiel, Netherlands, (com.)	11,358	Tottori, Japan	32,682
Tagbilaran, Philippine Islands	10,108	Tashkurgan (Khulm), Afghanistan	17,000	Tientsin, China	800,000	Toul, France	13,663
Tahla, Egypt	18,203	Tatar-Bazarjik, Bulgaria	17,698	Tietjerksteradeel, Netherlands, (com.)	14,994	Toulon, France	149,576
Taichu (Daichiu), Formosa, Japan	11,296	Táta, India	10,783	Tiflis, Russia	303,150	Toungoo, India	15,837
Taiku (Tai-Kou), Chosen (Korea)	27,592	Taubaté, Brazil	16,000	Tikamgarh, India	14,050	Tourcoing, France	82,644
Tainan (Dainan), Formosa, Japan	57,622	Taunton, England	22,561	Tilburg, Netherlands, (com.)	50,405	Tournay (Tournai), Belgium	36,982
Tai-ngan, China	46,000	Tavira, Portugal	11,665	Tilhar, India	19,091	Tours, France	73,398
Tai-pei (Dai-Hoku), Formosa, Japan	91,309	Tavoy, India	22,371	Tilsit, Germany	39,013	Toutcras, Bulgaria	10,490
Taiping, Federated Malay States	19,556	Tayabas, Philippine Islands	14,740	Tima, Egypt	14,326	Townsville, Australia	13,678
Tai-yuen, China	250,000	Tayug, Philippine Islands	10,400	Timaru, New Zealand	11,280	Toyama, Japan	57,437
Takamatsu, Japan	42,578	Tchempoulo (Chemulpo), Chosen (Korea)	25,167	Timbuktu, French Sahara	20,200	Toyohashi, Japan	43,980
Takaoka, Japan	33,603	Tchernigof (Chernigof), Russia	32,848	Tindivanam, India	11,373	Trani, Italy, (com.)	30,992
Takasaka, Japan	39,961	Tchesme, Turkey in Asia	15,000	Ting-hai, China	35,000	Trapani, Italy, (com.)	59,593
Takata, Japan	28,021	Tchigirin (Chigirin), Russia	12,000	Tinnevely, India	40,469	Trautenu, Austria	16,197
Takau (Taku, Takow), Formosa, Japan	12,161	Tchikment, Russia in Asia	10,856	Tipton, England	31,756	Treibtsch, Austria	12,500
Takayama, Japan	13,604	Tching-Nan-Po, Chosen (Korea)	15,708	Tirana, Albania	12,000	Trebizond, Turkey in Asia	51,000
Taku (Takau, Takow), Formosa, Japan	12,161	Tchirpan, Bulgaria	11,675	Tiraspol, Russia	35,242	Tredegar, England	23,601
Ta-ku-shan, Manchuria	40,000	Tchistopol (Chistopol), Russia	21,500	Tiremont, Belgium	18,662	Trelleborg (Trälleborg), Sweden	10,522
Tala, Egypt	15,018	Tchorlu, Turkey	14,000	Tirnova, Bulgaria	12,649	Trengganu (Tringau), Federated Malay States*	13,991
Talavera de la Reina, Spain	10,580	Teano, Italy, (com.)	12,394	Tiruchendur, India	26,056	Trent (Trient), Austria	30,049
Talca, Chile	45,000	Teddington, England	17,847	Tirupati, India	15,485	Treptau, Germany	24,469
Talcahuano, Chile	16,261	Tegel, Germany	18,572	Tiruvannamalai, India	17,069	Tres Cruces, Uruguay	33,889
Talence, France	11,832	Tegucigalpa, Honduras*	23,503	Tiruvottiyur, India	15,919	Treves (Trier), Germany	49,112
Talisay (in Cebu), Philippine Islands	13,636	Teheran, Persia*	280,000	Titagarh, India	16,065	Treviglio, Italy, (com.)	18,064
Talisay (in Negros Occidental), Philippine Islands	14,548	Tehuantepec, Mexico	11,013	Tiumen, Siberia	33,791	Tréviso, Italy, (com.)	41,025
Taltal, Chile	11,341	Telaf, Russia	11,214	Tiverton, England	10,205	Trichinopoly, India	122,029
Tamashima, Japan	20,815	Tellicherry, India	27,883	Tivoli, Italy, (com.)	14,871	Trichur, India	15,583
Tamatave, Madagascar	10,000	Temesvár, Hungary	72,555	Tizi-Ouzon, Algeria	31,404	Trient (Trient), Austria	30,040
Tambobong, Philippine Islands	20,163	Temir-Khan-Shura, Russia	13,787	Tizzana, Italy, (com.)	13,130	Trieste, Austria	151,659
Tambo, Russia	61,000	Tempelhof, Germany	20,733	Tjin-Tyrou, Chosen (Korea)	11,767	Triggiano, Italy, (com.)	10,228
Tamise, Belgium	13,303	Tempio Pausania, Italy, (com.)	16,500	Tijen-Tiyou, Chosen (Korea)	17,571	Trichala, Greece	17,802
Tammerfors, Russia	45,791	Temrinsk, Russia	15,419	Tlalapa, Mexico	15,448	Tringau (Trengau), Federated Malay States*	13,991
Tampico, Mexico	25,000	Temuco, Chile	20,000	Tlamecen, Algeria	39,874	Trinidad, Cuba	11,197
Tananarivo (Antananarivo), Madagascar	70,000	Tenali, India	10,204	Tobolsk, Siberia	21,406	Trinitapoli, Italy, (com.)	12,331
Tanauan (in Batangas), Philippine Islands	18,263	Teng-ngan, China	60,000	Tochigi, Japan	26,301	Trincomali, Ceylon	13,000
Tanauan (in Leyte), Philippine Islands	18,256	Teng-chau, China	231,000	Todi, Italy, (com.)	17,434	Trino, Italy, (com.)	11,582
Tanda (Fyzabad Dist. U. P.), India	19,853	Teng-yueh, China	10,000	Todmorden, England	25,404	Tripoli (Tarabulus), Syria	48,000
Tanda-Urmar, India	10,247	Tenkasi, India	18,128	Togo, Togoland	20,000	Tripoli, Tripoli*	40,000
Tanfield, England	10,101	Teocaltiche, Mexico	11,286	Tokat, Turkey in Asia	31,000	Tripolitza (Tripolis), Greece	10,789
Tanza, German East Africa	10,000	Tepic, Mexico	16,778	Tokio (Tokyo), Japan*	2,186,079	Trivandrum, India	57,882
Tangail, India	16,666	Teplitz, Austria	26,777	Toko, (Tongkong), Formosa, Japan	10,178	Troina, Italy	11,094
Tangermünde, Germany	14,001	Tergoviste (Tergovishte), Roumania	10,040	Tokushima, Japan	65,561	Troitsk, Russia in Asia	36,900
		Terlizzi, Italy	24,671	Tokuyama, Japan	11,561	Troandhem, Norway	45,228
		Termini Imerese, Italy, (com.)	17,971	Tokyo (Tokio), Japan*	2,186,079	Troppau, Austria	30,762
		Terni, Italy, (com.)	32,939	Toledo, Philippine Islands	12,929	Trowbridge, England	11,815
		Ternonede (Dendermonde), Belgium	10,153	Toledo, Spain	22,274	Troyes, France	55,486
		Terracina, Italy, (com.)	11,121	Tolenotino, Italy, (com.)	12,418	Trujillo, Spain	12,512
		Terranova Bracciolini, Italy, (com.)	10,229	Tollungge, India	12,821	Truro, England	11,325
		Terranova di Sicilia, Italy, (com.)	23,464	Toluca, Mexico	31,247	Tsarsitsyn, Russia	101,000
		Teruel, Spain	10,900	Tomelloso, Spain, (com.)	14,000	Tsaritskoye-Selo, Russia	30,890
		Teschén, Austria	22,489	Tomsk, Russia in Asia	112,104	Tschau, China	60,000
				Tonbridge, England	14,796	Tsin, China	250,000
				Tondano, Celebes	10,592	Tsing-chau, China	70,000
				Tongres, Belgium	10,382	Tsingtau, China	34,000

West Bridgford, England	11,632	Wishaw, Scotland	25,263	Vanina (Janina), Greece	20,000	Zafaran Boli, Turkey in Asia	10,000
West Bromwich, England	68,332	Wismar, Germany	24,378	Yan phing (Yenping), China	150,000	Zagazig, Egypt	35,000
Westervik (Västervik), Sweden	10,508	Withington, England	36,202	Yarkand, China	60,000	Zagrab (Agram), Hungary	79,038
West Ham, England	289,030	Witkowitz, Austria	23,157	Yarmouth, England	55,905	Zahleh, Turkey in Asia	15,000
West Hartlepool, England	63,923	Witten, Germany	37,450	Yarmouth (Great Yarmouth), England	111,876	Zala Egerszeg, Hungary	10,844
Westhoughton, England	15,046	Wittenberg (in Saxony), Germany	22,419	Yaroslaf, Russia	111,876	Zalenz, Germany	15,150
Weston-super-Mare, England	23,235	Wloclawak, Russia	37,416	Yarumal, Colombia	21,250	Zamorá, Mexico	15,116
Weststellingwerf, Netherlands, (com.)	16,519	Woking, England	24,808	Yatsushiro, Japan	11,100	Zamorá, Spain	16,487
Wetteren, Belgium	16,311	Wolfsbüttel, Germany	18,934	Yaval, India	11,448	Zante, Greece	13,580
Wetzlar, Germany	13,389	Wolstanton United, England	27,335	Yawata, Japan	22,767	Zanzibar Protectorate*	35,260
Wexford, Ireland	11,455	Wolverhampton, England	95,328	Yecla, Spain	23,046	Zapotlan, Mexico	18,000
Weymouth and Melcombe Regis, England	22,324	Wombwell, England	17,536	Yeksk, Russia	48,404	Zapotlanejo, Mexico	20,750
Whickham, England	18,332	Wonsan, Chosen (Korea)	17,138	Yekaterin'sk (Ekaterinburg), Russia	70,000	Zara, Austria	36,604
Whitby, England	11,139	Wonsederadeel, Netherlands, (com.)	12,847	Yekaterin'sk (Ekaterinburg), Russia	217,850	Zaragoza (Saragossa), Spain	51,919
Whitehaven, England	19,044	Woodford (in Essex), England	18,496	Yelabuga (Elabuga), Russia	10,000	Zaraza, Venezuela	10,000
Whitley and Monkseaton, England	14,407	Wood Green, England	49,369	Yelets (Yelets), Russia	58,000	Zbaraz, Austria	10,000
Whittington and Newbold, England	17,213	Woodstock, Transvaal, Union of South Africa	30,000	Yelisavetgrad (Elizavetgrad), Russia	75,850	Zehlendorf, Germany	16,864
Widnes, England	31,541	Woolahra, Australia	12,816	Yelisavetpol (Elizavetpol), Russia	60,454	Zeila (Zeyla), French Somaliland	15,200
Wien (Vienna), Austria*	2,031,498	Worcester, England	47,982	Yellandlapad, India	12,377	Zeist, Netherlands, (com.)	12,806
Wiener-Neustadt, Austria	32,874	Workington, England	25,032	Yemmiganur, India	13,890	Zeje, Belgium	14,302
Wiesbaden, Germany	109,002	Workshop, England	20,387	Yenchau, China	60,000	Zelen, Persia	24,100
Wiesdorf, Germany	15,363	Worms, Germany	46,819	Yeni Chehir, Turkey in Asia	23,500	Zenta, Hungary	29,666
Wigan, England	89,152	Worsborough, England	12,750	Yen ping (Yanphing), China	200,000	Zerbst, Germany	19,210
Wijnbriteradeel, Netherlands, (com.)	12,232	Worsley, England	13,906	Yen ping (Yanphing), China	16,555	Zeulenroda, Germany	10,389
Wiju (Wi-Jyu), Chosen (Korea)	13,215	Worthing, England	30,305	Yeola, India	10,549	Zgierz, Russia	19,124
Wilhelmsburg, Germany	28,225	Wrexham, Wales	18,377	Yeotmal, India	10,549	Zhitomir, Russia	92,580
Wilhelmshaven, Germany	35,042	Wrschowitz, Austria	24,646	Yeovil, England	13,759	Zifta, Egypt	15,850
Willebroeck, Belgium	11,906	Wuchang, China	500,000	Yezd, Persia	45,000	Zilleh (Zileh), Turkey in Asia	27,000
Willenhall, England	18,844	Wuhu, China	122,000	Ying-tze, Manchuria	60,000	Zimony (Semlin), Hungary	17,131
Willens, England	154,214	Wulfrath, Germany	10,103	Yochau, China	20,000	Zinder (Sinder), French Sahara	10,000
Williamstown, Australia	12,114	Wurno, Nigeria	15,000	Yokkaichi, Japan	30,704	Zipaquira, Colombia	11,000
Wilmsdorf, Germany	109,716	Wurselen, Germany	13,084	Yokohama, Japan	394,303	Zitacuaro, Mexico	11,100
Wimbledon, England	54,966	Würzburg, Germany	84,496	Yokosuka, Japan	70,964	Zittau, Germany	37,084
Winburg (Wynburg), Union of South Africa	16,000	Wurzen, Germany	18,582	Yola, Nigeria	15,000	Zizkow, Austria	72,173
Winchester, England	23,378	Wycombe (Chipping-), England	20,387	Yonago, Japan	12,500	Zlatoust (Slatoust), Russia	34,205
Windhoek, German S. W. Africa*	15,370	Wynburg (Winburg), C.G. H., Union of S. Africa	16,000	Yonezawa, Japan	35,380	Zloczów, Austria	10,000
Windsor, England	15,370	Xanthus (Xanthie), Turkey in Asia	18,000	Yongsan, Chosen (Korea), York, England	50,191	Znaim, Austria	18,750
Winschoten, Netherlands, (com.)	11,202	Kochimilco, Mexico	30,093	Ypres, Belgium	82,282	Zolotonosha, Russia	10,550
Winsford (in Cheshire), England	10,770	Yakoba, Nigeria	70,000	Ystad, Sweden	11,684	Zombor, Hungary	30,593
Winterswijk, Netherlands, (com.)	13,352	Yalta, Russia	23,000	Yunnan, China	150,000	Zoppot, Germany	15,015
Winterthur, Switzerland	25,250	Yamagata, Japan	42,234	Yuriev (Dorpat), Russia	44,140	Zoungouldak, Turkey in Asia	25,000
Wloclaw, Russia	25,000	Yamaguchi, Japan	21,100	Yuyao, China	60,000	Zuffenhausen, Germany	12,752
Wisbech, England	10,822	Yamboli (Jamboli), Bulgaria	15,956	Zaandam, Netherlands, (com.)	24,579	Zurich, Switzerland	198,733
		Yanagawa, Japan	19,000	Zaberge, Germany	27,065	Zutphen, Netherlands, (com.)	18,313
		Yandoon, India	12,779	Zabrze, Germany	63,373	Zweibrücken, Germany	15,215
		Yang, China	15,000	Zacatecas, Mexico	25,900	Zwickau, Germany	73,542
				Zacatecoluca, Salvador	24,944	Zwolle, Netherlands, (com.)	34,055



PRINCIPAL UNIVERSITIES IN THE UNITED STATES

State	Institution	Denomination	Location	Approx. No. of Students
Ala.	Univ. of Alabama	Nonsect.	University	700
Ark.	Arkansas	"	Fayetteville	900
Cal.	California	"	Berkeley	8,180
"	Southern California	M. E.	Los Angeles	3,000
"	Leland Stanford Junior Univ.	Nonsect.	Stanford Univ.	1,893
Col.	Univ. of Colorado	"	Boulder	1,400
"	Denver	M. E.	University Park	1,300
Conn.	Yale Univ.	Nonsect.	New Haven	3,289
D. C.	George Washington Univ.	"	Washington	1,700
"	Howard Univ. (Colored)	"	"	1,600
Fla.	John B. Stetson Univ.	Bapt.	De Land	500
Ga.	Univ. of Georgia	Nonsect.	Athens	800
Idaho	Idaho	"	Moscow	600
Ill.	Chicago	"	Chicago	7,131
"	Loyola Univ.	R. C.	"	1,500
"	James Millikin Univ.	Presb.	Decatur	1,250
"	Northwestern Univ.	M. E.	Evanston	4,072
"	Univ. of Illinois	Nonsect.	Urbana	5,664
Ind.	Indiana Univ.	"	Bloomington	2,163
"	De Pauw Univ.	M. E.	Greencastle	1,100
"	Purdue Univ.	Nonsect.	Lafayette	2,500
"	Univ. of Notre Dame	R. C.	Notre Dame	1,100
"	Valparaiso Univ.	Nonsect.	Valparaiso	6,000
Iowa	State University of Iowa	"	Iowa City	2,768
Kan.	Univ. of Kansas	"	Lawrence	2,600
"	Kansas Wesleyan Univ.	M. E.	Salina	950
Ky.	State Univ. of Kentucky	Nonsect.	Lexington	1,300
La.	Tulane Univ. of Louisiana	"	New Orleans	2,441
Me.	Univ. of Maine	"	Orono	1,200
Md.	Johns Hopkins Univ.	"	Baltimore	1,374
Mass.	Boston Univ.	M. E.	Boston	1,900
"	Harvard Univ.	Nonsect.	Cambridge	6,411
Mich.	Univ. of Michigan	"	Ann Arbor	6,319
Minn.	Minnesota	"	Minneapolis	4,484
Miss.	Mississippi	"	University	600
Mo.	Missouri	"	Columbia	3,385
"	St. Louis Univ.	R. C.	St. Louis	1,500
"	Washington Univ.	Nonsect.	"	2,000
Neb.	Univ. of Nebraska	"	Lincoln	3,199
N. J.	Princeton Univ.	"	Princeton	1,641
N. Y.	Cornell Univ.	"	Ithaca	5,939
"	Columbia Univ.	"	New York	11,294
"	Fordham Univ.	R. C.	"	1,700
"	New York Univ.	Nonsect.	"	6,142
"	Syracuse Univ.	"	Syracuse	3,913
N. C.	Univ. of North Carolina	"	Chapel Hill	1,000
N. D.	Univ. of North Dakota	"	University	800
O.	Ohio Northern Univ.	M. E.	Ada	1,500
"	Ohio Univ.	Nonsect.	Athens	1,500
"	Univ. of Cincinnati	"	Cincinnati	2,190
"	Ohio State Univ.	"	Columbus	4,943
"	Ohio Wesleyan Univ.	M. E.	Delaware	1,300
"	Denison Univ.	Bapt.	Granville	800
"	Miami Univ.	Nonsect.	Oxford	700
"	Univ. of Wooster	Presb.	Wooster	1,000
Okla.	Oklahoma	Nonsect.	Norman	1,100
Ore.	Oregon	"	Eugene	1,300
Pa.	Bucknell Univ.	Bapt.	Lewisburg	800
"	Temple Univ.	Nonsect.	Philadelphia	1,700
"	Univ. of Pennsylvania	"	"	6,503
"	Univ. of Pittsburgh	"	Pittsburgh	2,975
R. I.	Brown Univ.	Bapt.	Providence	1,000
Tenn.	Univ. of Tennessee	Nonsect.	Knoxville	1,100
"	Lincoln Memorial Univ.	"	Cumberland Gap	900
Tex.	Univ. of Texas	"	Austin	3,371
"	Baylor Univ.	Bapt.	Waco	1,200
Utah	Univ. of Utah	Nonsect.	Salt Lake City	1,200
Vt.	Vermont	"	Burlington	700
Va.	Virginia	"	Charlottesville	902
Wash.	Washington	"	Seattle	2,600
W. Va.	West Virginia	"	Morgantown	1,000
Wis.	Wisconsin	"	Madison	6,696
"	Marquette Univ.	R. C.	Milwaukee	1,800

TABLE OF MOVABLE FEASTS, ETC.—1890-1950

By Berlin H. Wright

Year	Septuagesima Sunday	Ash Wednesday	Easter				Ascension	Pentecost Sunday	Sundays After		First Sunday in Advent
			Golden No.	Epact.	Sunday Letter	Easter Day			Trinity (Prot.).	Pentecost (Cath.).	
1890	February 27	February 19	10	9	E	April 6	May 15	May 25	25	26	November 30
1891	January 25	February 11	11	20	D	March 29	May 7	May 17	26	27	November 29
1892	February 14	March 2	12	1	C B	April 17	May 26	June 5	23	24	November 27
1893	January 29	February 15	13	12	A	April 2	May 11	May 21	26	27	December 3
1894	January 21	February 7	14	23	G F	March 25	May 3	May 13	27	28	December 2
1895	February 10	February 27	15	4	F	April 14	May 23	June 2	24	25	December 1
1896	February 2	February 19	16	15	E D	April 5	May 14	May 24	25	26	November 29
1897	February 14	March 3	17	26	C	April 18	May 27	June 6	23	24	November 28
1898	February 6	February 23	18	7	B	April 10	May 19	May 29	24	25	November 27
1899	January 29	February 15	19	18	A G	April 2	May 11	May 21	26	27	December 3
1900	February 11	February 28	1	29	F	April 15	May 24	June 3	24	25	December 2
1901	February 3	February 20	2	10	G	April 7	May 16	May 26	25	26	December 1
1902	January 26	February 12	3	21	E	March 30	May 8	May 18	26	27	November 30
1903	February 8	February 25	4	2	D	April 12	May 21	May 31	24	25	November 29
1904	January 31	February 17	5	13	C B	April 3	May 12	May 22	25	26	November 27
1905	February 19	March 8	6	24	A G	April 23	June 1	June 11	23	24	December 3
1906	February 11	February 28	7	5	F	April 15	May 24	June 3	24	25	December 2
1907	January 27	February 13	8	16	E D	March 31	May 9	May 19	26	27	December 1
1908	February 16	March 4	9	27	C	April 19	May 28	June 7	23	24	November 29
1909	February 7	February 24	10	8	B	April 11	May 20	May 30	24	25	November 28
1910	January 23	February 9	11	19	A	March 27	May 5	May 15	26	27	November 27
1911	February 12	March 1	12	0	G F	April 16	May 25	June 4	24	25	December 2
1912	February 4	February 21	13	11	F	April 7	May 16	May 26	25	26	December 1
1913	January 19	February 5	14	22	E D	March 23	May 1	May 11	27	28	November 30
1914	February 8	February 25	15	3	C	April 12	May 23	May 31	24	25	November 29
1915	January 31	February 17	16	14	B	April 4	May 13	May 23	25	26	November 23
1916	February 20	March 8	17	26	A	April 23	June 1	June 11	23	24	December 3
1917	February 4	February 21	18	6	G F	April 8	May 17	May 27	25	26	December 2
1918	January 27	February 13	19	17	F	March 31	May 9	May 19	26	27	December 1
1919	February 16	March 5	1	29	E D	April 20	May 29	June 8	23	24	November 30
1920	February 1	February 18	2	10	C	March 24	May 13	May 23	25	26	November 28
1921	January 23	February 9	3	21	B	March 27	May 5	May 15	26	27	November 27
1922	February 12	March 1	4	2	A G	April 16	May 25	June 4	24	25	December 3
1923	January 28	February 14	5	13	F	April 1	May 10	May 20	26	27	December 2
1924	February 17	March 6	6	24	E D	March 5	May 29	June 8	23	24	November 30
1925	February 8	February 25	7	5	C	April 12	May 21	May 31	24	25	November 29
1926	January 31	February 17	8	16	B	April 4	May 13	May 23	25	26	November 28
1927	February 13	March 2	9	27	A	April 17	May 26	June 5	23	24	November 27
1928	February 5	February 22	10	8	G F	April 8	May 17	May 27	25	26	December 2
1929	January 27	February 13	11	19	F	March 31	May 9	May 19	26	27	December 1
1930	February 16	March 5	12	0	E D	April 20	May 29	June 8	23	24	November 30
1931	February 1	February 18	13	11	C	April 5	May 14	May 24	25	26	November 29
1932	January 24	February 10	14	22	B	March 27	May 8	May 18	26	27	November 27
1933	February 12	March 1	15	3	A	April 16	May 25	June 4	24	25	December 3
1934	January 28	February 14	16	14	G F	April 1	May 10	May 20	26	27	December 2
1935	February 17	March 6	17	26	F	April 21	May 30	June 9	23	24	December 1
1936	February 9	February 26	18	6	E D	April 12	May 21	May 31	24	25	November 29
1937	January 24	February 10	19	17	C	March 28	May 6	May 16	26	27	November 28
1938	February 13	March 2	1	29	B	April 17	May 26	June 5	23	24	November 27
1939	February 5	February 22	2	10	A	April 9	May 18	May 28	25	26	December 3
1940	January 21	February 7	3	21	G F	March 24	May 2	May 12	27	28	December 1
1941	February 9	February 26	4	2	E D	April 13	May 22	June 1	24	25	November 30
1942	February 1	February 18	5	13	C	April 5	May 14	May 24	25	26	November 29
1943	February 21	March 10	6	24	B	April 25	June 3	June 13	22	23	November 28
1944	February 6	February 23	7	5	A	April 9	May 18	May 28	25	26	December 3
1945	January 28	February 14	8	16	G F	April 1	May 10	May 20	26	27	December 2
1946	February 17	March 6	9	27	F	April 21	May 30	June 9	23	24	December 1
1947	February 2	February 19	10	8	E D	April 6	May 15	May 25	25	26	November 30
1948	January 25	February 11	11	19	C	March 28	May 6	May 16	26	27	November 28
1949	February 13	March 2	12	0	B	April 17	May 26	June 5	23	24	November 27
1950	February 5	February 22	13	11	A	April 9	May 18	May 28	25	26	December 3

THE LONGEST DAY

It is quite important when speaking of the longest day of the year to say what part of the world we are talking about, as will be seen by the following list.

At Stockholm, Sweden, the longest day is eighteen and one-half hours in length.

At Spitzbergen, it is three and one-half months.

At London, England, and Bremen, Prussia, the longest day has seventeen hours.

At Wardbury, Norway, the longest day lasts from May 21st to July 22d, without interruption.

At PETROGRAD, Russia, and Tobolsk, Siberia, the longest day is nineteen hours and the shortest five hours.

At Tornea, Finland, June 21st brings a day nearly twenty-two hours long, and Christmas is less than three hours in length.

At New York, the longest day is about fifteen hours long, and at Montreal, Canada, it is sixteen.

CITIES AND TOWNS OF THE DOMINION OF CANADA

LATEST POPULATION FIGURES

The following list names in alphabetical order, all incorporated places and approximately all cities and towns in the Dominion of Canada having two hundred or more inhabitants. The numerals at extreme right of columns are the latest available census figures or recent estimates. Capitals of Provinces are in capital letters.

ALBERTA	ALBERTA Cont'd.	BR. COL. Cont'd.	BR. COL. Cont'd.	MANITOBA Cont'd.
Acme	181 Lille	303 Comap ix	275 Trail	1,460 Person
Airdrie	164 Lloydminster	222 Corbin	450 Trout Lake	325 Pilot Mound
Alix	267 Macleod	1,844 Cranbrook	3,090 Vancouver	100,401 Plumas
Athabaska Landing	227 Magrath	995 Creston	300 Vernon	2,671 Plum Coulee
Banff	937 Manville	169 Cumberland	1,237 VICTORIA	31,660 Portage la Prairie
Bankhead	694 Medicine Hat Est. 17,000	600 Duncan Station	600 Wardner	220 Rapid City
Barnwell	225 Millet	162 Earls Road	300 Wellington	370 Rathwell
Barons	75 Morinville	385 Eholt	325 Ymir	600 Reston
Bassano	540 Munson	200 Enderby	835	916 Rivers
Bawlf	270 Nanton	571 Erie	220	950 Roblin
Bellevue	463 North Edmonton	404 Esquimalt	4,001	350 Roland
Bickerdike	150 North Red Deer	304 Fairview	330	433 Rosenfeld
Blackfalds	150 Ogden	530 Ferguson	235	300 Russell
Blairmore	1,137 Okotoks	516 Fernie	3,146 Arden	225 St. Boniface
Bowden	178 Olds	917 Fort Steele	276 Austin	260 Ste. Anne des
Bow Island	307 Fassburg	305 Go-den	932 Baldur	415 Chenes
Brooks	486 Pincher	116 Grand Forks	1,577 Barrows	245 St. George
Bruderheim	132 Pincher Creek	1,027 Greenwood	779 Beausejour	847 St. Jean Baptiste
Burdette	230 Ponoka	642 Hazelton	550 Belmont	350 St. Laurent
Calgary Est. 84,000	Provo-st	329 Hedley	320 Benito	225 St. Norbert
Camrose	1,586 Queenstown	666 Hosmer	2,019 Binscarth	260 St. Pierre Jolys
Camrose	754 Kaymond	1,465 Kamloops	3,772 Birtle	437 Selkirk
Cardiff	246 Redcliffe	220 Kaslo	722 Boissevain	918 Shoal Lake
Cardston	1,207 Red Deer	2,118 Kelowna	1,663 Brandon Est. 17,500	878 Somers-et
Carmangay	286 Riviere Qui Barre	190 Kitchener	235 Carberry	878 Souris
Carstairs	270 St. Albert	311 Yuquot	350 Carman	1,271 Stonewall
Castor	1,659 Sedgewick	985 Ladner	800 Cartwright	300 Stony Mountain
Cayley	126 Staford	245 Ladysmith	3,295 Crystal City	535 Strathclair
Claresholm	809 Stavelly	1,444 Langley Fort	305 Cypress River	305 Swan Lake
Coalhurst	450 Stettler	1,444 Langley Prairie	320 Dauphin	2,815 Swan River
Cochrane	395 Stirling	505 Lillooet	300 Deloraine	808 Teulon
Coleman	1,557 Stony Plain	505 Lunenburg	300 Dominion City	225 Transcona
Coronation	1,200 Strathcona	5,579 Lytton	200 Dunrea	200 Treherne
Cowley	142 Strathmore	531 Marysville	300 Elgin	365 Tyndall
Crossfield	262 Strome	192 Merritt	703 Elkton	574 Virden
Daysland	349 Taber	1,400 Michel	850 Elm Creek	265 Waskada
Diamond City	510 Tofield	586 Midway	250 Emerson	1,043 Wawanesa
Didsbury	726 Trochu	353 Mission City	500 Garson	220 Winkler
EDMONTON Est. 68,500	Vegreville	1,029 Moyle	560 Gilbert Plains	496 WINNIPEG Est. 225,000
Edson	497 Vermilion	153 Nakusp	347 Gimli	782 Winnipeg Beach
Elm Park	140 Viking	788 Nanaimo	8,168 Gladstone	560 Winnipegosis
Entwistle	140 Wainwright	200 Nelson	4,476 Glenboro	291 York Factory
Erskine	131 Wa sh	200 New Denver	900 Grandview	637
Exshaw	250 Warner	321 New Michel	900 Gretna	519
Fitzhugh	225 West Edmonton	181 No. Westminister	13,199 Griswold	325
Ft. Saskatchewan	782 Wetaskiwin	2,411 No. Vancouver	8,196 Hamiota	565 Albert
Frank	806	211 Peachland	800 Hartney	623 Albert Mines
Gadsby	213	211 Peniticon	750 Holland	361 Alma
Gleichen	583	662 Inkster	225 Killarney	225 Andover
Granum	250 Abbotsford	300 Pilot Bay	200 La Riviere	1,010 Apohaqui
Grassy Lake	247 Agassiz	330 Point Grey	4,320 Lauder	225 Armstrongs Brook
Grouard	447 Ainsworth	320 Port Alberni	700 Le Pas	225 Aroostook Junction
Hardieville	330 Alberni	891 Port Essington	350 Letellier	265 Back Bay
Hardisty	351 Anacoda	350 Port Hammond	300 Mac Gregor	284 Baie Verte
High River	1,182 Armstrong	810 Port Hanco	230 Manitou	550 Baillie
Hillcrest Mines	481 Arrowhead	560 Prince Moody	550 Melita	639 Balmoral
Hill Spring	275 Ashcroft	535 Princeton	4,184 Miami	690 Barachois
Holden	111 Atlin	325 Quatsino	200 Minnedosa	375 Barnaby River
Innisfail	601 Barkerville	320 Quatsino Sound	200 Morden	325 Barnesville
Irricana	400 Barnett	300 Revelstoke	3,017 Morris	1,483 Bass River
Irvine	372 Beaconsfield	300 Rossland	2,826 Napinka	1,130 Bath
Killam	197 Beaver Lake	250 Neepawa	400 Secelt	598 Bathurst
Kimball	265 Brechin	300 Slocan	189 Newdale	326 Bay du Vin
Lacombe	1,029 Camborne	550 St. Vancouver	16,126 Ninga	1,864 Beaver Harbor
Lamont	192 Central Park	1,557 Steveston	1,100 Oak Lake	225 Belledune
Langdon	150 Chemainus	800 Stewart	835 Norway House	268 Belledune River
Lavoy	127 Chilliwack	220 Summerland	250 Telegraph Creek	325 Benton
Leduc	523 Clayoquot	220 Cobble Hill	285	1,150 Berrys Mills
Lethbridge Est. 11,000	1,000	285	250	449 Berwick
Lignite	330	285	250	225 Black River

N. B. Cont'd.		N. B. Cont'd.		N. B. Cont'd.		NOVA SCOTIA Cont'd.		NOVA SCOTIA Cont'd.	
Blacks Harbor	300	Jacquet River	400	St. Anthony	200	Belle Marche	200	E. Pubnico	600
Blackville	400	Jolicure	250	Ste. Croix	300	Belleville	300	E. River	200
Blissfield	250	Kingston	500	St. George	988	Belliveau Cove	300	Eatonville	250
Blissville	300	Kirkland	200	St. Jacques	200	Belmont	300	Economy	350
Bloomfield	400	Kouchibouguac	600	St. John	42,511	Berwick	1,000	Ecum Secum	250
Bloomfield, Kings	200	Lameque	375	St. Joseph	400	Big Bras d'Or	250	Eel Brook	200
Boisstown	250	Lepreau	300	St. Josephs	200	Big Tracadie	250	Elmsdale	400
Bonney River	200	L'Etete	200	St. Leonards	276	Biltown	200	Enfield	250
Botsford Portage	250	Lewisville	350	St. Louis	400	Blandford	200	English Town	200
Bristol	300	Little Shippegan	250	St. Martins	1,500	Blockhouse	200	Fairview Station	250
Buctouche	500	Loggieville	800	St. Marys Ferry	900	Blue Mountain	300	Falmouth Station	200
Butternut Ridge	500	Lower Caraqueet	1,500	St. Paul	600	Blue Rock	300	First South	250
Calboun	200	Lower Newcastle	250	St. Stephen	2,836	Boylston	300	Five Islands	625
Cambridge	200	Lower Prince	400	Salisbury	300	Bridgport	1,200	Five Mile River	200
Campbellton	3,817	William	400	Scoudouc	200	Bridgetown	996	Fourchu	220
Campo Bello	400	Lower Southamp-	200	Second Falls	200	Bridgville	200	Fox River	250
Canterbury Station	250	ton	200	Shediac	1,442	Bridgewater	2,775	Frankville	200
Cape Bald	300	Lower Woodstock	250	Sheffield	350	Brighton	300	Freeport	500
Caraqueet	2,800	McAdam Junction	1,000	Shipigan	500	Broad Cove	300	French Village	200
Centreville	600	McLeods Mills	250	Southampton	300	Chapel	300	Friars Head	300
Chatham	4,666	Markhamville	300	Springfield, Kings	300	Broad Cove	300	Gabardus	400
Chapman	350	Marysville	1,837	Springfield, York	300	Marsh	200	Gabarouse	1,750
Clair	200	Mascarene	300	Springhill	250	Brookfield	400	Gabarouse Lake	200
Clifton	200	Mechanics Settle-	250	Stonehaven	300	Brooklyn	300	Gays River	300
Coates Mill	200	ment	250	Sussex	1,906	Brook Village	250	Georgeville	200
Cocagne	900	Melrose	200	Sussex Corner	300	Brookville	300	Gilbert Cove	225
Coldstream	300	Memramcook	300	Tabusintac	600	Brule	400	Gillies Point	200
Coles Island	300	Middle Southamp-	600	Tracadie	1,500	Burnside	250	Glance Bay	16,562
Collina	350	ton	600	Tracey Station	250	Caledonia	300	Glencoe	650
Cork	350	Millford	400	Upham	200	Caledonia, Queens	500	Glenholme	400
Cornierville	500	Millerton	400	Upper Dorchester	250	Cannes	200	Goldboro	500
Corr. Hill	300	Millidgeville	400	Upper Gagetown	200	Canning	1,500	Grand Desert	530
Coverdale	250	Millstream	400	Upper Sackville	250	Canso	1,617	Grand Etang	400
Dalhousie	1,650	Milltown	1,804	Village St. Jean	250	Cape Augnet	300	Grand Mira So.	300
Dalhousie Junction	200	Millville	300	Waterford	1,450	Cape Negro	250	Grand Narrows	250
Dawson Settlement	200	Miscou Harbour	250	Welsford	200	Cape North	350	Grand Pre	250
Debec	200	Moncton	11,345	Westfield Beach	200	Cape Sable	200	Granville Centre	300
Deer Island	1,500	Moore's Mills	300	Whites Cove	200	Island	200	Granville Ferry	320
Derby	200	Mt. Carmel	200	Wickham	250	Catalone	200	Great Village	800
De Wolfe Corner	200	Musquash	250	Windsor	200	Central New	300	Greenfield	200
Doaktown	400	Nashwaaksis	225	Woodstock	3,856	Annan	300	Green Harbor	300
Dorchester	1,080	Nelson	200	Youngs Cove	300	Centre Burlington	350	Green Hill	200
Douglas	200	Newcastle	2,945	NOVA SCOTIA					
Douglas Harbor	200	New Denmark	500	Advocate Harbor	850	Charles Cove	200	Grosses Coques	500
Douglstown	500	New Jerusalem	250	Amherst	8,973	Chaswood	200	Guy'sborough	1,000
Dupeys Corner	400	New Mills	200	Antigonish	1,787	Chelsea	300	Guy'sborough,	
East Florenceville	201	North Esk	500	Antigonish	1,787	Chester	900	Intervale	300
Edmundston	1,821	Norton	500	Antigonish	1,787	Chester Basin	300	Halifax	46,619
Eel River Crossing	400	Notre Dame	400	Apple River	400	Cherrie	200	Hammonds Plains	300
Elgin	250	Oak Bay	150	Archat	800	Chignecto	200	Hantsport	686
Escuminac	330	Oak Point	250	Arisaig	200	Clarke's Island	300	Harmony Mills	200
Fairville	2,000	Oromocto	250	Aspen	400	Church Point	250	Havre Boucher	700
Five Fingers	500	Pelletiers Mills	200	Atwoods Brook	200	Clarks Harbor	1,000	Hays River	200
Florenceville	350	Pennfield Centre	600	Auburn	200	Clementsvalle	300	Hazel Hill	450
Foxcreek	500	Penobscus	300	Avonport	220	Clementsvalle	250	Head of Jordan	
Fredrickton	7,208	Perth	300	Aylesford	350	Cleveland	200	River	600
Fredrickton		Petersville Church	750	Baccaro	250	Clyde River	200	Head of St.	
Junction	350	Petitcodiac	750	Baddeck	1,650	Collingwood	300	Margarets Bay	300
Gagetown	233	Petit Rocher	250	Baileys Brook	250	Corner	300	Heatherton	200
Gardners Creek	200	Point de Bute	250	Baker Settlement	200	Comeauville	400	Hebron	500
Gibson	800	Port Elgin	800	Balmoral Mills	250	Connes Mills	200	Herring Cove	325
Glassville	200	Prince William	900	Barneys River	400	Conquerall Banks	275	Hopewell	300
Grand Anse	700	Quaco	300	Barneys River	400	Dalhousie East	250	Hortonville	425
Grand Falls	1,280	Randolph	600	Station	200	Dalhousie West	250	Hubbards	450
Grand Manan	3,000	Red Rapids	200	Barrington	700	Deep Brook	5,058	Ingonish	400
Gr at Shernogac	300	Renous River	200	Barrington	700	Denmark	400	Inverness	2,719
Green River Station	200	Rexton	600	Passage	500	Denmark	200	Irish Cove	300
Hammond Vale	200	Richibucto	871	Passage	500	Denver	300	Iron Mines	200
Hamstead	250	Richibucto Village	300	Passage	500	Descouse	300	Isaacs Harbor	500
Hampton	554	Richmond Corner	275	Passage	500	Digby	1,247	Jeddore Oyster	
Harcourt	400	River Charlo	350	Passage	500	Diligent River	300	Ponds	300
Hartland	844	Riverside	250	Passage	500	Doctors Cove	200	Joggins Mines	500
Harvey	1,800	Robichaud	300	Passage	500	Dominion	2,589	Jordan Branch	250
Head of Millstream	600	Rogersville	1,000	Passage	500	Dominion No. 6	200	Judique	300
Hallsborough	911	Rolling Dam	500	Passage	500	Dunvegan	200	Kemptville	200
Hopewell Cape	300	Rothsay	500	Passage	500	Eartlown	300	Kennetcook	
Hopewell Hill	200	Round Hill	300	Passage	500	East Bay	250	Corner	250
Inkerman	500	Rusagornis	200	Passage	500	E. Chezzetcook	600	Kentville	2,304
Inkstown	200	Sackville	2,039	Passage	500	Eastern Harbor	1,000	Kingsbury	225
		St. Andrews	987	Passage	500	Eastern Passage	250	Kinsmans	
				Passage	500	E. Port Medway	200	Corners	300

NOVA SCOTIA Cont'd.	NOVA SCOTIA Cont'd.	NOVA SCOTIA Cont'd.	NOVA SCOTIA Cont'd.	ONTARIO Cont'd.
La Have 200	Millville 200	River Dennis 300	Upper Rawdon 350	Barrys Bay 300
La Have Island 200	Mill Village 721	Centre 300	Upper Stewacke 250	Bartonville 275
Lake Vale 350	Milton 1,100	River Hebert 400	Victoria Beach 300	Barwick 200
L'Ardoise 750	Minudie 600	River John 500	Victoria Mines 350	Bath 347
Larrys River 600	Mira Ferry 350	River Philip 200	Wakerville 200	Battersea 325
Lawrencetown 280	Mira Gut 350	Riverport 200	Wallace 400	Bayfield 477
Lingan 200	Mochelle 200	Riverside Corner 200	Walton 600	Beachville 235
Lia wood 200	Moose River 500	Rockingham 200	Waterville 300	Beachburg 500
Liscomb 500	Gold Mines 400	Station 200	Waverley 600	Beachville 550
Little Bras d'Or 200	Morristown 200	Rocklin 200	Wedgport 1,392	Beamsville 1,096
Little Brook 400	Mosers River 250	Rockville 200	Wentworth Station 700	Beaumont 200
Little Dover 300	Mount Hanly 200	Rose Bay 250	Wentzels Lake 200	Beaverton 1,015
Little Lorraine 500	Mulgrave 700	Round Hill 200	West Bay 200	Beeton 564
Little Narrows 300	Musquodoboit 500	Sable River 200	Westche ter 200	Be-grave 225
Little River 350	Harbor 500	St. Bernard 1,000	West New Annan 300	Belle River 520
Little River 500	Necum Teuch 400	St. Peters 250	West Newby 250	Belleville 9,876
Cheticamp 500	Neils Harbor 300	Salmon River 400	Quoddy 600	Belmont 620
Little River Mus- 550	New Aberdeen 600	Salt Springs 400	Westport 600	Belmore 200
quodoboit 2,109	New Albany 200	Sambro 400	West Pubnico 1,150	Belwood 350
Liverpool 200	New Germany 1,500	Sandford 250	West River 200	Berkeley 220
Lochaber 200	New Glasgow 6,383	Sandy Cove 500	West River Station 200	Berlin 15,196
Loch Lomond 250	New Harbor 250	Sandy Point 400	Weymouth 4,417	Berwick 230
Lockeport 784	Newport 400	Saulnierville 400	Weymouth North 1,000	Bethany 500
Loganville 250	Newport Landing 500	Scotch Village 200	Weymouth Mills 500	Biscuits Bridge 500
Londonderry 1,500	New Ross 200	Scotts Bay 250	White Rock Mills 200	Biscotasing 500
Londerry Station 200	New Waterford 3,000	Seabright 300	Whycocomagh 400	Blackburn 218
Long Point 250	Nictaux Falls 800	Selma 250	Wilmot 200	Blair 220
Louisburg 1,006	Nine Mile River 300	Sheet Harbor 375	Windsor 3,452	Blackford 350
Louisdale 200	Noel 300	Shelburne 1,435	Windsor Junction 200	B. enheim 1,387
Lower Argyle 825	No. Brookfield 200	Sherbrooke 250	Wine Harbor 200	Blind River 2,558
Lower Barneys 200	No. E. Harbor 250	Shinimicas Bridge 250	Wolville 1,458	Bloomfield 610
River 200	Northfield 250	Shubenacadie 1,475	Yarmouth 6,600	Bloomsburg 218
Lower East 300	No. River 300	Shunacadie 200		Bluevale 330
Pubnico 300	No. Salem 200	Sluice Point 250		Blyth 704
Lower Economy 200	No. Sydney 5,418	Somerset 240		Bobcaygeon 1,000
Lower l'Ardoise 300	Osborne 200	Sonora 300	Aberdeen 275	Bolton 712
Lower Onslow 500	Owls Head 200	South Alton 300	Acton 1,720	Bondhead 500
Lower Sackville 300	Harbor 200	Southampton 225	Admaston 300	Bonfield 484
Lower Sandy Point 250	Oxford 1,392	South Bay 250	Agincourt 325	Bookton 185
Lower Selmah 200	Paradise 350	So. Farmington 250	Ahmie Harbor 200	Boston 270
Lower Ship 200	Parrsboro 2,856	So. Maitland 300	Ailsa Craig 568	Bothwell 690
Harbor 250	Petite de Grat 600	So. Ohio 300	Alexandria 2,323	Bourget 560
Lower Stewacke 600	Bridge 350	Springfield 200	Alfred 700	Bowmanville 2,814
Lower West 250	Petite Riviere 600	Springhaven 200	Algoma Mills 200	Bracebridge 2,776
Pubnico 250	Bridge 600	Spring Hill 5,713	Allenford 375	Bradford 946
Lower Wood 300	Pictou 3,179	Springville 350	Alliston 1,279	Braeside 600
Harbor 600	Pleasant Bay 275	Spry Bay 200	Alma 250	Brampton 3,412
Lunenburg 2,681	Pleasant Harbor 200	Stellarton 3,910	Almonte 2,452	Brantford 23,132
Lyons Brook 200	Pleasant River 250	Stewartdale 350	Alton 675	Brechin 340
McKinnons Har- 300	Pleasant Valley 400	Stewacke 633	Alvinston 806	Breslau 225
bor 600	Point Cross 200	Summerville 300	Ameliasburg 275	Bridgeburg 1,770
Mabou 600	Portapique 200	Sunnybrae 200	Amherstburg 2,560	Bridgeport 220
Maccan 250	Port Dufferin 600	Sydney 17,723	Amigari 150	Brigden 325
Mahone Bay 800	Port Felix 200	Sydney Mines 7,470	Ancaster 400	Bridgen 650
Main-a-Dieu 300	Port George 200	Sydney River 200	Angus 275	Bright 480
Maitland 600	Port Greville 450	Tancook Island 700	Appin 200	Brighton 1,320
Maitland, Hants 600	Port Hastings 600	Tangier 300	Apple Hill 360	Britannia Bay 275
Maplewood 200	Port Hawkesbury 684	Tatamagouche 500	Appleton 280	Brookville 9,374
Marble Mountain 300	Port Hillford 500	The Falls 300	Arden 900	Bronte 350
Margaree Harbor 300	Port Hood 1,078	Thompsons 200	Arkona 424	Brooklin 550
Margaretsville 500	Port Joli 200	Station 200	Arnprior 4,405	Brougham 300
Marie Joseph 500	Port La Tour 200	Thorburn 500	Arthur 1,102	Brownsville 425
Marion Bridge 250	Port Lorne 300	Tidnish 300	Ashton 250	Brucefield 240
Mariotts Cove 250	Port Maitland 975	Tiverton 250	Athens 802	Bruce Mines 689
Martins River 200	Port Malcolm 350	Tomkinsville 200	Atwood 500	Brussels 902
Mass Town 250	Port Medway 600	Toney Mills 200	Auburn 240	Burford 850
Mavillette 200	Port Morien 1,000	Torbay 300	Aultsville 1,900	Burgessville 325
Meaghers Grant 250	Portuguese Cove 600	Torbrook 300	Aurora 1,901	Burks Falls 976
Melvyn Square 400	Port Wade 200	Torbrook Mines 200	Avening 220	Burlington 1,831
Merigomish 400	Port Williams 550	Trenton 1,749	Aylmer 470	Burrirts Rapids 200
Meteghan 1,000	Poulandmont 200	Truro 6,107	Aynmore 2,102	Byng Inlet 500
Meteghan River 400	Princeport 200	Tusket 450	Ayr 823	Cache Bay 889
Meteghan Station 250	Prospect 700	Two Rivers 200	Ayton 500	Cainsville 375
Middle Lahave 500	Pubnico Head 500	Upper Kennetcook 200	Baden 900	Caintown 190
Ferry 300	Pugwash 700	Upper Middleboro 200	Bailieboro 150	Calabogie 400
Middle Musquodo- 1,000	Quinan 300	Upper Musquodo- 300	Ballinafad 180	Caledon 210
boit 827	Rawdon 250	boit 300	Baltimore 300	Caledon East 315
Middleton 500	Reserve Mines 1,200	Upper New Harbor 200	Bancroft 625	Caledonia 952
Milford Station 500	River Bourgeois 950	Upper Newport 200	Barrie 6,420	Callender 700
Mill Cove 200	River Dennis 300	Upper Port La Tour 300	Barriefield 520	Camden East 400

CITIES AND TOWNS OF CANADA

ONTARIO Cont'd.	ONTARIO Cont'd.	ONTARIO Cont'd.	ONTARIO Cont'd.	ONTARIO Cont'd.
Camlachie 200	Curran 325	Fort Frances 1,611	Islington 215	Martintown 400
Campbellford 3,051	Cutler 400	Fort William 16,499	Jarvis 510	Massey 864
Campbellville 260	Dashwood 450	Fournier 325	Jerseyville 260	Matheson 400
Cannamore 230	Deer Park 950	Foxboro 335	Jordan Station 190	Mattawa 1,524
Cannifton 275	Delaware 340	Frankford 720	Kakabeka Falls 200	Maxville 759
Cannington 948	Delhi 825	Frankville 230	Kearney 812	Meadowvale 220
Cape Croker 500	Delta 520	Freeton 200	Keene 430	Meaford 2,811
Cardinal 1,111	Denbigh 200	Fullarton 180	Keewatin 1,242	Melbourne 350
Cargill 450	Depot Harbor 657	Galt 10,299	Kelvin 230	Merlin 340
Carleton Place 3,621	Deseronto 2,013	Ganaoguc 3,804	Kemptville 1,192	Merrickville 993
Carlsruhe 200	Dickinsons 200	Garden Hill 200	Kenmore 220	Merriton 1,670
Carp 300	Landing 275	Garden Island 150	Kenora 6,158	Metcalfe 435
Casselman 956	Dominionville 200	Garden River 500	Kerwood 270	Micaville 150
Castleton 400	Donald 350	Garson Mine 300	Killaloe 435	Micksburg 200
Catawaqui 275	Doon 400	Georgetown 1,583	Killaloe Station 450	Middlemiss 135
Cavan 215	Dorchester Station 540	Glamis 230	Killarney 200	Middleport 210
Cayuga 736	Dorion 200	Glen Allan 280	Kinburn 215	Middleville 215
Cedar Dale 200	Douglas 500	Glencloe 841	Kincardine 1,956	Midland 4,663
Cedar Grove 200	Drayton 706	Glen Morris 175	King 480	Mildmay 1,050
Centralia 275	Dresden 1,551	Glen Robertson 285	Kingston 18,874	Milford 265
Centreville 250	Drumbo 580	Glen Williams 430	Kingston Mills 210	Millbank 420
Chantry 200	Dryden 715	Goderich 4,522	Kingsville 1,427	Millbridge 230
Chapleau 1,500	Duart 175	Goodwood 310	Kinmount 600	Mill Brook 793
Charlton 250	Dublin 385	Gore Bay 703	Kirkfield 325	Mille Roches 625
Chatham 10,770	Dunchurch 300	Gorrie 500	Kirkton 200	Milton West 1,654
Chatsworth 357	Dundalk 687	Gowganda 150	Kleinburg 370	Milverton 826
Chelmsford 550	Dundas 4,299	Grafton 435	Komoka 275	Mimico 1,373
Cheltenham 250	Dundela 200	Grand Valley 775	Lakefield 1,397	Minden 200
Chepstow 220	Dungannon 270	Grand View 900	Lakeport 210	Missanabie 200
Cherry Valley 175	Dunnville 2,861	Granton 400	Lambeth 300	Mitchell 1,766
Chesley 1,734	Dunvegan 220	Gravenhurst 1,624	Lambton Mills 525	Mond 200
Chesterville 883	Durham 1,581	Greenwood 200	Lanark 737	Monkton 370
Chippawa 707	Dutton 836	Grimby 1,669	Lancaster 624	Moorefield 335
Christian Island 200	Earlscourt 430	Guelph 15,175	Langton 225	Mooretown 260
Chute a	Eastons Corner 230	Haddo 150	Lansdowne 420	Moose Creek 415
Blondeau 350	E. Toronto 3,000	Hagersville 1,106	Larder Lake 200	Morewood 300
Clandeboyne 230	Eastview 3,169	Haileybury 3,874	Latchford 428	Morpeth 270
Claremont 550	Echo Place 300	Haliburton 482	Laurentian View 450	Morrisburg 1,696
Clarence Creek 300	Eganville 1,189	Hamilton 81,969	Leamington 2,652	Morrison 320
Clarksburg 740	Egmondville 740	Hampton 270	Lefavre 240	Morton 265
Clarkstown 325	Elgin 325	Hanover 2,342	Lefroy 230	Moulinette 320
Clifford 595	Elginburg 180	Harbord 160	Lindsay 6,964	Mount Albert 530
Clinton 2,254	Elk Lake 1,000	Harrisburg 150	Linwood 475	Mount Brydges 435
Cobalt 5,638	Elmira 1,782	Harrison 1,491	Lions Head 520	Mount Dennis 500
Cobden 762	Elmvale 950	Harrow 450	Lisle 215	Mount Forest 1,839
Coboconk 520	Elmwood 535	Harrowsmith 430	Listowel 2,289	Mount Hope 220
Cobourg 5,074	Elora 1,197	Harwood 330	Little Britain 300	Mount Pleasant, Brant 450
Cochrane 1,715	Embro 477	Hastings 883	Little Current 1,208	Durham 240
Cockburn Island 218	Embrun 530	Havelock 1,436	Lombardy 280	Mount Pleasant, Nain 450
Colborne 999	Emsdale 300	Hawkesbury 4,400	Londesborough 240	Napier 270
Coldwater 649	Enterprise 670	Hawkesville 230	London 46,300	Napanee 225
Colebrook 7,090	Englehart 460	Hawthorne 150	Longford Mills 320	Napanee 2,807
Collingwood 7,090	Enterprise 460	Head Lake 700	L'Original 1,347	Napier 270
Collins Bay 220	Erin 511	Helen Mine 300	Loring 500	Navan 310
Comber 630	Erindale 210	Hensall 792	Lotus 215	Neustadt 466
Conestogo 430	Ernestown Station 210	Hepworth 1,353	Lucan 709	Newboro 469
Connaught 270	Essex 1,353	Hesper 2,368	Lucknow 967	Newburgh 465
Consecon 450	Ethel 200	Hickson 220	Lunenburg 225	Newbury 377
Conway 150	Everett 175	Highgate 480	Lyn 540	Newcastle 655
Cookstown 625	Everson 170	Highland Creek 220	Lynden 480	New Dundee 340
Cooksville 340	Excelsior 350	Hillsburgh 520	Lyndhurst 275	New Hamburg 1,484
Copetown 230	Exeter 1,555	Hillsdale 430	Lyndoch 230	Newington 360
Copper Cliff 3,082	Fairfield East 215	Hilton 250	McGregor 270	New Liskeard 2,108
Corbetton 200	Falls View 215	Holland Landing 502	McMillans Corners 330	New Lowell 270
Cordova Mines 200	Farrans Point 270	Holstein 400	Madoc 1,058	Newmarket 2,996
Cornwall 6,598	Fenelon Falls 1,053	Hornby 175	Magnetawan 300	Newton 230
Corunna 200	Fergus 1,534	Hornings Mills 365	Maitland 210	Newton Brook 280
Cottam 200	Finch 411	Humber Bay 307	Mallorytown 440	New Toronto 350
Courtland 320	Fingal 360	Humberstone 450	Malton 315	Niagara on the Lake 1,318
Courtright 375	Fitzroy Harbor 270	Huntley 310	Malvern 220	Niagara Falls 9,248
Credit Forks 240	Flesherton 500	Huntsville 2,358	Manchester 120	Nilestown 200
Crediton 450	Fletcher 170	Ilerton 225	Manilla 270	Nipigon 500
Creemore 643	Flordale 230	Ingersoll 4,763	Manitowaning 450	Nobleton 215
Creighton 250	Florence 360	Inglewood 360	Manotick 465	Norham 200
Crysler 550	Fonthill 300	Inkerman 320	Markdale 925	Norman 300
Culloden 215	Fordwich 600	Inkerip 330	Markham 909	North Augusta 530
Cumberland 330	Forest 1,445	Innisville 200	Markham 909	North Bay 7,737
Cummings Bridge 1,700	Foresters Falls 250	Inwood 380	Marbank 630	North Cobalt 200
Cundles 200	Fort Erie 1,146	Iroquois 849	Marmora 866	

ONTARIO Cont'd.		ONTARIO Cont'd.		ONTARIO Cont'd.		ONTARIO Cont'd.		P. E. I. Cont'd.	
North Gower	320	Rainy River	1,578	Springford	300	Wallaceburg	3,438	Hunter River	250
North Lancaster	275	Rankin	200	Spruce Dale	250	Wallacetown	300	Kensington	500
North Port	200	Renfrew	3,846	Stamford	310	Walsingham Centre	350	Mill River	200
North Toronto	5,362	Richards Landing	300	Staples	300	Wardsville	240	Montague	1,100
Norval	375	Richmond	428	Stayner	1,039	Warkworth	700	Montrose	200
Norwich	1,112	Richmond Hill	652	Steeleton	1,336	Warren	500	Mount Stewart	300
Norwood	811	Ridgetown	1,954	Stella	200	Washago	200	Murray Harbor	200
Nottawa	260	Ridgeway	870	Stevensville	350	Waterdown	756	O'Leary Station	300
Novar	350	Ripley	700	Stewart Town	900	Waterford	1,083	Orwell	250
Oakland	200	Roblin	160	Stirling	848	Waterloo	4,360	Pinette	400
Oakville	2,372	Rockland	3,397	Stittville	250	Watford	1,092	Pisquid	230
Oakwood	280	Rockport	310	Stony Creek	530	Waubushene	800	St. Eleanors	200
Odessa	740	Rockton	100	Stony Point	370	Webbwood	657	St. Louis	200
Oil City	275	Rockwood	620	Stouffville	1,034	Welland	5,318	Souris	1,089
Oil Springs	646	Rodney	676	Stratfordville	270	Wellandport	225	Stanley Bridge	350
Omamee	505	Rosemont	165	Stratford	12,946	Wellesley	650	Suffolk	200
Orangeville	2,340	Rosseau	250	Strathcona	370	Wellington	785	Summerside	2,678
Orillia	6,828	Rothsay	175	Strathroy	2,823	Wendover	220	Tignish	450
Orland	170	Routhier	250	Streetsville	543	Westboro	550	Tryon	250
Orleans	200	Russell	650	Stroud	200	W. Flamboro	325	Tyne Valley	200
Oroono	830	St. Amour	200	Sturgeon Bay	200	W. Lorne	740	Valleyfield	200
Orwell	315	St. Andrews W.	200	Sturgeon Falls	2,199	Westmeath	250	Victoria	400
Osceola	200	St. Anne de		Sudbury	4,150	Weston	1,875		
Oshawa	7,436	Prescott	300	Summerstown	200	Westport	803	QUEBEC	
Osnabrock Centre	420	St. Catharines	12,484	Summerstown Station	260	W. Toronto	12,000	Abbotsford	1,000
OTTAWA	87,062	St. Clements	300	Sunderland	650	Wheatley	650	Abenakis Springs	200
Otterville	780	St. Davids	225	Sundridge	420	Whitby	2,248	Abercorn	250
Owen Sound	12,558	St. Eugene	400	Sutton West	753	Whitechurch	225	Acton Vale	1,402
Oxford Mills	450	St. George	900	Swansea	500	White River	250	Adamsville	375
Paisley	830	St. Isidore		Swatika	300	Whitevale	200	Adstock	350
Pakenham	600	de Prescott	550	Sydenham	630	Whitney	800	Agnes	417
Palmerston	1,665	St. Jacobs	520	Tagona	520	Wiarion	2,266	Amqui	1,070
Paris	4,098	St. Marys	3,388	Tamworth	850	Wicklow	350	Andreville	428
Park Hill	1,289	St. Onge	200	Tara	551	Wikwemikong	400	Ange Gardien	1,450
Parry Sound	3,429	St. Paschal Baylon	250	Tavistock	981	Wilkesport	215	Ange Gardien de	
Pelee Island	620	St. Thomas	14,054	Tecumseh	300	Williamsburgh	350	Rouville	400
Pembroke	5,626	St. Williams	215	Teesswater	854	Williamsford	275	Angers	450
Pendleton	225	Salem	470	Teeterville	200	Williamstown	640	Anjou	200
Penetanguishene	3,588	Sand Point	350	Thamesford	500	Wilton	200	Armagh	1,000
Perth	3,578	Sandwich	2,302	Thamesville	807	Winchester	1,143	Arthabaska	1,458
Peterboro	18,360	Sarnia	9,947	Theford	559	Winchester Springs	360	Arthurville	300
Petrolia	3,518	Sault Ste.		Thessalon	1,945	Windham Centre	265	Arundel	250
Phelpston	220	Marie	10,984	Thornbury	793	Windsor	17,829	Asbestos	2,224
Phillipsville	330	Scarboro Junction	220	Thornedale	550	Wingham	2,238	Ascot Corner	770
Pickering	850	Schomberg	400	Thornhill	900	Winona	500	Athelstan	200
Pictou	3,564	Schrieber	600	Thornloe	300	Wolfe Island	550	Avignon	1,000
Plainfield	225	Scotland	450	Thornton	250	Wolverton	200	Ayers Cliff	316
Plantagenet	475	Seaford	1,983	Thorold	2,273	Woodbridge	607	Aylmer	3,109
Plattsville	650	Sebringville	535	Tilbury, Essex	406	Woodstock	9,320	Aylwin	200
Plevna	205	Seeleys Bay	230	Tilbury, Kent	1,368	Woodville	394	Bagotville	1,011
Point Anne	230	Selby	200	Tilsonburg	2,758	Wooler	325	Bas de St. Paul	1,857
Point Edward	874	Selkirk	350	Tiverton	340	Worthington	200	Beaconsfield	375
Pontypool	370	Severn Bridge	275	Tomdorden	400	Wroxeter	366	Beauce Junction	300
Port Arthur	11,220	Shakespeare	400	Toledo	450	Wychood	275	Beauceville, E.	1,677
Port Burwell	750	Shallow Lake	509	Tomstown	200	Wyebidge	700	Beauceville, W.	500
Port Carling	378	Shannonville	350	TORONTO	376,538	Wyoming	569	Beauharnois	2,015
Port Colborne	1,624	Sharbo Lake	430	Tottenham	517	Yarker	475	Beaulac	431
Port Credit	575	Sharpton	200	Trenton	3,988	York	375	Beaulieu	200
Port Dalhousie	1,152	Shedden	300	Trout Creek	400	Zurich	700	Beaumont	350
Port Dover	1,138	Shelburne	1,113	Tweed	1,368			Beauport	3,000
Port Elgin	1,235	Sherkston	225	Uffington	100			Beaurive	500
Port Elmsley	210	Simcoe	3,227	Union	250			Beaucourt	311
Port Hope	5,092	Singhampton	200	Unionville	1,433			Bedford	1,432
Port Lambton	320	Smithfield	225	Uxbridge	1,433			Bebe	808
Portland	350	Smiths Falls	6,370	Vanessa	227	Abrams Village	350	Beebe Junction	200
Port McNicoll	430	Smithville	650	Vankleek Hill	1,577	Alberton	700	Belles Mills	250
Port Perry	1,148	Sombra	500	Vars	500	Bellast	300	Belle Riviere	400
Port Robinson	520	Southampton	1,685	Verner	500	Bedalbane	200	Beleil	1,501
Port Rowan	721	So. Gower	80	Vernon	225	Caledonia	200	Beleil Station	800
Portsmouth	1,786	So. Indian	275	Verona	215	Cape Traverse	250	Beranger	200
Port Stanley	891	So. Mountain	420	Victoria Harbor	1,616	Cardigan	200	Bergerville	300
Powassan	644	So. River	593	Victoria Mines	260	Cartoon	200	Bernier	628
Prescott	2,801	So. Woodslee	350	Victoria Road	332	Cavendish	200		
Preston	3,883	Spanish Mills	200	Vienna	230	CHARLOTTE			
Priceville	320	Spanish	200	Vineland	230	TOWN	11,203		
Prince Albert	250	Sparta	425	Vittoria	200	Coleman	300		
Princeton	450	Spencerville	500	Waldemar	175	Cape T.D.	400		
Quadville	250	Sprage	400	Wales	250	Ellerslie	200		
Queensville	210	Springbrook	225	Walkerton	2,601	Flat River	250		
Rainham Centre	200	Springfield	454	Walkerville	3,302	Georgetown	1,010		

QUEBEC Cont'd.	QUEBEC Cont'd.	QUEBEC Cont'd.	QUEBEC Cont'd.	QUEBEC Cont'd.
Bersimis..... 700	Clarenceville..... 450	Grande Baie..... 1,300	Laprairie..... 2,388	Montmorency..... 1,717
Berthier..... 1,335	Coteaucook..... 3,165	Grande Freniere..... 200	La Presentation..... 600	Montpellier..... 200
Berthi (en bas)..... 500	Coteau Station..... 350	Grande Pile..... 500	Larochelle..... 391	Montreal..... 470,480
Berthier Junction..... 225	Como..... 898	Grand Ligne..... 200	L'Assomption..... 1,747	Montreal S. O..... 793
Bic..... 2,500	Compton..... 382	Grand Mere..... 4,783	La Tuque..... 2,934	Montreal W..... 700
Bisville..... 1,004	Coteaucoeur..... 624	Grand Metis..... 250	Laurientides..... 1,128	Mont Rolland..... 475
Bishops Crossing..... 600	Cookshire..... 996	Grand Pabos..... 600	Lauriville..... 339	Mont St. Hilaire..... 500
Black Lake..... 2,645	Corner of the	Grand River..... 500	Lauzon..... 3,978	Morin Heights..... 220
Blanche..... 200	Beach..... 300	Grand Saint	Laval..... 323	Moulin Charette..... 380
Boileau..... 500	Coteau du Lac..... 428	Esprit..... 200	Lavaltrie..... 500	Mount Carmel..... 1,075
Bolduc..... 750	Coteau Landing..... 385	Grand Vallee..... 325	L'Avenir..... 750	Mount Johnson..... 450
Bolton Centre..... 200	Coteau Station..... 643	Greenfield Park..... 200	La Visitation..... 250	Mt. Royal Vale..... 400
Bonaventure	Cote St. Luc..... 303	Green River..... 200	Lawrenceville..... 226	Murray Bay..... 1,449
River..... 1,200	Cote St. Michel..... 500	Grenville..... 1,383	Leclercville..... 530	Namur..... 300
Bord a Plouffe..... 200	Cote St. Vincent..... 150	Grondines..... 1,100	Leeds Village..... 200	Napierville..... 691
Bordeaux..... 994	Courcelles..... 900	Hatley..... 498	Lennoxville..... 1,211	Newville..... 800
Boucherville..... 1,097	Cowansville..... 881	Hebertville..... 2,800	L'Epiphanie..... 1,400	Newbois..... 200
Bouchette..... 350	Cross Point..... 700	Helena..... 200	Les Eboulements..... 2,000	New Carlisle..... 1,000
Breakeyville..... 700	Cushing..... 280	Hemmingford..... 313	Les Ecureuils..... 400	New Liverpool..... 200
Bridgeville..... 200	Dalhousie Station..... 400	Henryville..... 1,000	Les Escoumains..... 800	Newport..... 850
Brigham..... 300	Dalibaire..... 1,500	Hebertville..... 655	Levis..... 7,452	New Richmond
Broadlands..... 200	Danville..... 1,331	Howick..... 450	Linerie..... 600	Station..... 400
Brome..... 548	Davelayville..... 294	Hube deau..... 350	L'Islet..... 2,000	New Rockland..... 176
Bromptonville..... 1,239	Deschailons..... 1,161	Hudson..... 650	Little Cascapedia..... 400	Nicolet..... 2,593
Brookdale..... 600	Deschambault..... 1,200	Hull..... 18,222	Little Metis..... 500	Nominigues..... 548
Broughton Station..... 250	Deschenes Mills..... 300	Hunterstown..... 600	Little Metis	No. Clarendon..... 200
Brownburgh..... 525	Dewittville..... 200	Huntingdon..... 1,265	Station..... 300	No. Ham..... 400
Bryson..... 477	D'Israeli..... 1,606	Huntingville..... 250	Little Pabos..... 400	No. Hatley..... 500
Buckingham..... 3,854	Dixville..... 404	Huron..... 368	Little River E..... 200	No. Nation Mills..... 200
Buckland..... 500	Dorion..... 631	Iberville..... 1,905	Little River W..... 250	No. Onslow..... 1,200
Bury..... 600	Dorval..... 1,005	Ile aux Noix..... 400	Longueuil..... 3,972	No. Stanbridge..... 250
Cabano..... 500	Douglstown..... 1,100	Inverness..... 194	Lorette..... 1,588	No. Stukely..... 400
Cacouna..... 500	Douville..... 250	Island Brook..... 200	Lorne..... 200	No. Wakefield..... 250
Calumet..... 400	Drummondville..... 1,725	Ile aux Coudres..... 600	Lorraineville..... 300	Notre Dame de
Calumet Island..... 447	Dunham..... 286	Ile aux Grues..... 400	Lotbiniere..... 850	Graces W..... 5,217
Campbells Bay..... 229	E. Angus..... 1,400	Ile Bizard..... 200	Louiseville..... 1,675	Notre Dame de
Canrobert..... 300	E. Broughton..... 850	Ile Dupas..... 375	Lourdes..... 300	Rimouski..... 400
Cap a la Baleine..... 930	E. Clifton..... 250	Ile Verte..... 2,250	Lower Ireland..... 200	Notre-Dame de
Cap Chate..... 930	E. Farnham..... 607	Johanne..... 300	Lyster Station..... 350	La Salette..... 200
Cap des Rosier..... 2,000	E. Templeton..... 600	Joliette..... 6,346	Magdalen Islands..... 3,700	Notre-Dame des
Cape Cove..... 200	Eastman..... 600	Jonquiere..... 2,354	Magog..... 3,978	Bois..... 500
Cape Despair..... 600	E. Templeton..... 600	Kamouraska..... 519	Maisonneuve..... 18,684	Notre Dame de
Capeleton..... 475	Eaton..... 150	Kazubazua Sta..... 250	Malbaie..... 1,449	Stanbridge..... 768
Caplin River..... 1,750	Egypte..... 200	Kelso..... 200	Manche d'Epec..... 200	Notre Dame du
Cap Magdeleine..... 600	Emileville..... 200	Kiamika..... 160	Mandville..... 400	Lac..... 1,250
Cap Rouge..... 2,650	Escuminac..... 300	Kildare..... 800	Maniwaki..... 1,461	Notre Dame du
Cap St. Ignace..... 250	Eustis..... 200	Kingsbury..... 263	Manseau..... 400	Laus..... 300
Cap St. Martin..... 790	Fabre..... 200	Kingsey Falls..... 300	Mansonville..... 420	Notre Dame du
Cap Sante..... 350	Farnham..... 3,560	Knowlton..... 865	Maple Grove..... 250	Portage..... 400
Capucins..... 200	Farrington..... 300	La Baie..... 1,500	Marbleton..... 681	Notre Dame du
Caribou Islands..... 188	Fassett..... 800	La Baie Shawenegan..... 1,024	Maria..... 4,000	Rosaire..... 200
Carleton..... 1,500	Father Point..... 280	Labelle..... 826	Maria Capes..... 600	Nouvelle..... 200
Cartierville..... 905	Ferme Neuve..... 280	Lacadie..... 1,500	Maria E..... 200	Noyan..... 200
Cascades Point..... 200	Fernville..... 500	Lac a la Tortue..... 350	Martenville..... 1,587	O'Donnells Siding..... 900
Caughnawaga..... 2,000	Fitch Bay..... 500	Lac au Saumon..... 1,171	Martinville..... 404	Oka..... 584
Causapscal..... 1,000	Fort Coulonge..... 81	Lac aux Sables..... 400	Mascouche..... 650	Ormstown..... 782
Cazaville..... 250	Foster..... 200	Lac Bellemare..... 300	Mascouche Rapids..... 200	Otter Lake..... 200
Cedars..... 500	Fox River..... 1,000	La Chapelle..... 200	Masham Mills..... 400	Outremont..... 4,820
Chambly Basin..... 900	Franklin Centre..... 280	Lachenaie..... 650	Maskinonge..... 775	Papineauville..... 1,015
Chambly Canton..... 857	Fraserville..... 6,733	La Chevroliere..... 250	Massawippi..... 200	Paquette..... 350
Champlain..... 1,400	Frelighsburg..... 282	Lachine..... 10,699	Masson..... 1,034	Pare..... 200
Chapeau..... 277	Frost Village..... 225	Lachute..... 2,407	Massueville..... 776	Parisville..... 400
Charette..... 220	Fulford..... 200	Lachute Mills..... 850	Mastai..... 200	Paspebiac..... 1,500
Charlemagne..... 776	Gagne..... 250	Lacolle..... 1,000	Matane..... 1,850	Pentacost River..... 320
Charlesbourg..... 2,000	Gardby..... 300	La Conception..... 200	Matapedia..... 600	Perce..... 1,500
Chartierville..... 800	Gascon..... 500	Lake Alymer..... 200	Mawcook..... 350	Perkins..... 350
Chateauguay..... 400	Gaspé..... 606	Lake Etchemin..... 400	Melbourne..... 314	Petit Bois..... 200
Chateauguay	Gaspé	Lakefield..... 500	Melcheville..... 250	Petite Mascouche..... 200
Basin..... 250	Gaspé Bay So..... 400	Lake Megantic..... 2,399	Milton E..... 200	Petite Matane..... 450
Chateau Richer..... 1,350	Gentilly..... 430	Lambton..... 1,650	Mingan..... 250	Petit Metis..... 285
Chaudiere Station..... 250	Georgville..... 250	Landreville..... 200	Mistassini..... 750	Phillipsburg E..... 347
Chelsea..... 200	Girard..... 250	Langevin..... 1,000	Moisie..... 351	Piapiolis..... 536
Cheneville..... 505	Glen Murray..... 200	L'Annonciation..... 622	Montcalm..... 500	Piedmont..... 200
Chemin Gouin..... 200	Glen Sutton..... 200	Lanoraie..... 600	Montebello..... 954	Pierreville..... 1,363
Chesterville..... 263	Gould..... 250	L'Anse a Giles..... 300	Montfort..... 400	Pierreville Mills..... 250
Chicot..... 250	Gracefield..... 300	L'Anse au Beaulieu..... 200	Mont Joli..... 2,141	Pigeon Hill..... 260
Chicoutimi..... 5,880	Grandy..... 4,750	L'Anse au Foin..... 500	Mont Laurier..... 752	Pike River..... 220
Christieville..... 200	Grand	La Patrie..... 700	Mont Louis..... 300	Piopolis..... 250
Clairevaux de Bagot..... 200	Cascapedia..... 450	La Petite Riviere..... 200	Plaisance..... 300	Flessisville..... 1,559
		La Plaine..... 200	Montmagny..... 2,617	

QUEBEC Cont'd.		QUEBEC Cont'd.		QUEBEC Cont'd.		QUEBEC Cont'd.		QUEBEC Cont'd.	
Pointe a Calumet.....	250	St. Andre Avelin.....	1,500	Ste. Adele.....	300	Ste. Malachi.....	2,000	St. Gregoire.....	800
Pointe au Pic.....	617	St. Andrews E.....	1,000	Ste. Agathe des		Ste. Marguerite,		St. Guillaume.....	300
Pointe aux Trembles 1,167		St. Anne de Beaulieu 326		Monts.....	2,020	Dorchester.....	300	St. Guillaume.....	300
Pointe Bleue.....	400	St. Anselme.....	2,000	Ste. Agnes de		Ste. Marguerite.....	350	d'Upton.....	905
Pointe Claire.....	793	St. Antoine.....	800	Charlevoix.....	200	Ste. Marie.....	2,000	St. Henri, Levis.....	700
Pointe du Lac.....	875	St. Antoine de		Ste. Anastasie.....	300	Ste. Marie de		St. Hermas.....	300
Pointe Gatineau.....	1,751	Tilly.....	500	Ste. Angele.....	400	Blandford.....	450	St. Hermenegilde.....	200
Point Fortune.....	311	St. Antonin.....	400	Ste. Angele de		Ste. Marthe.....	350	St. Hilaire.....	650
Point Briand.....	250	St. Apollinaire.....	600	Laval.....	900	Ste. Martine.....	400	St. Hippolyte de	
Pont Chateau.....	425	St. Armand Station	350	Ste. Angele de		Ste. Melanie.....	300	Kilkenny.....	400
Pont de Maskinonge	900	St. Arsene.....	500	Monnoir.....	350	St. Emile de		St. Hugues.....	470
Pont Rouge.....	1,200	St. Augustin.....	800	Ste. Anne de		Montcalm.....	275	St. Hyacinthe.....	9,797
Pont Viau.....	500	Portneuf.....	800	Beaupre.....	1,326	St. Emile de		St. Ignace de	
Portage du Fort.....	365	St. Augustin.....	300	Ste. Anne de		Suffolk.....	300	Loyola.....	250
Port Daniel Centre.	800	St. Barnabe, N.....	2,100	Bellevue.....	1,416	Ste. Monique,		St. Irene.....	600
Portneuf.....	1,450	St. Barnabe Sud.....	980	Ste. Anne de la		Nicolet.....	600	St. Isidore.....	250
Portneuf Station.....	220	St. Barthelemi.....	1,000	Perade.....	1,200	Ste. Monique.....	250	St. Isidore, La	
Powers Court.....	200	St. Bazile.....	1,500	Ste. Anne de la		Ste. Perpetue.....	350	Prairie.....	200
Presieux Sang.....	525	St. Bazile de Grand	500	Pocatiere.....	1,000	St. Perpetue,		St. Jacques.....	1,500
QUEBEC.....	78,067	St. Benjamin.....	345	Ste. Anne des		L'Islet.....	1,175	St. Jacques le Mineur	200
Quyon.....	806	St. Benoit.....	345	Monts.....	1,300	Ste. Philomene.....	250	St. Janvier.....	300
Racine.....	350	St. Benoit Labre	800	Ste. Anne des		Ste. Philomene de		St. Jean.....	5,903
Radnor Forges.....	650	St. Bernard.....	500	Plaines.....	300	Forterville.....	300	St. Jean Baptiste	
Radstock.....	350	St. Blaise.....	900	Ste. Beatrix.....	350	St. Ephrem.....	509	de Rouville.....	500
Rapide de l'Original	350	St. Bonaventure.....	900	Ste. Brigitte d'Iber-		St. Epiphane.....	1,200	St. Jean de Matha.....	1,000
Rawdon.....	600	St. Boniface de		ville.....	230	St. Rosalie.....	250	St. Jean d'Orleans	800
Restigouche.....	325	Shawinigan.....	500	Ste. Brigitte des		Ste. Rose, Laval.....	1,480	St. Jean l'Evangeli-	
Richardville.....	332	St. Bruno, Chicoutimi	373	Saults.....	250	Ste. Rose de		iste.....	500
Richelleu.....	2,175	St. Calixte de	725	Ste. Catherine.....	300	Watford.....	350	St. Jean Port Joli.....	1,000
Richmond.....	856	Kilkenny.....	300	Ste. Cecile de Lev-		St. Sabine de		St. Jerome, Chicoutimi	719
Rigaud.....	3,097	St. Camille.....	500	rard.....	500	Bellechasse.....	300	St. Jerome de	
Rimouski.....	1,000	St. Camille de		St. Cecile de		St. Scholastique.....	757	Matane.....	2,056
Ripon.....	368	Bellechasse.....	200	Whiton.....	200	St. Sophie.....	500	St. Joachim de	
River Beaudette.....	250	St. Capute.....	250	St. Christine.....	250	St. Esprit.....	1,000	Montmorency.....	250
Riviere a Claude.....	200	St. Casimir.....	2,000	St. Claire.....	800	St. Theodosie.....	1,000	St. John.....	6,500
Riviere a la Martre	200	St. Celestin.....	1,200	St. Clothilde.....	375	St. Therese.....	2,120	St. Joseph, Beauce.....	1,440
Riviere a Pierre.....	850	St. Cesaire.....	941	St. Clothilde de		St. Etienne de Beau-		St. Joseph.....	
Riviere aux		St. Charles.....	800	Chateauguay.....	250	harnois.....	200	Richelleu.....	1,416
Chiens.....	200	St. Charles, St.		St. Croix.....	1,000	St. Etienne des		St. Joseph d'Alma.....	600
Riviere Bois Clair.....	1,275	Hyacinthe.....	650	St. Dorothee.....	850	Gres.....	300	St. Joseph de	
Riviere Desert.....	500	St. Edouard.....	230	St. Edouard.....	300	St. Eugene.....	250	Sorel.....	400
Riviere des Prairies	350	St. Edwidge.....	600	St. Eleuthere.....	800	St. Ursule.....	800	St. Joseph du Lac.....	250
Riviere du Loup.....	6,774	St. Elie.....	300	St. Elie.....	300	St. Eustache.....	996	St. Jovite.....	1,200
Riviere Gentilly.....	250	St. Elizabeth.....	220	St. Evariste de		St. Jude.....	600	St. Justin.....	350
Riviere Ouelle.....	1,600	St. Eloi.....	300	Forsyth.....	200	St. Lambert.....	3,344	St. Laurent.....	1,860
Riviere St. Jean.....	250	St. Clotilde.....	490	St. Evariste Station		St. Laurent.....	300	St. Laurent	
Riviere Trois		St. Clotilde.....	490	St. Fabien.....	1,000	d'Orleans.....	300	St. Lazare.....	350
Pistoles.....	500	St. Come.....	500	St. Faustin.....	300	St. Lazare de		Vaudreuil.....	400
Robertsonville.....	603	St. Constant.....	500	St. Felix de		St. Leonard d'As-		ton.....	1,050
Robervil.....	1,737	St. Cunegonde.....	11,177	St. Felix de		Valois.....	1,200	St. Liboire.....	550
Robitaille.....	400	St. Cuthbert.....	1,000	St. Flore.....	350	St. Ferdinand.....	1,000	St. Liguori.....	325
Rochon.....	200	St. Cuthbert Sta.	275	St. Genevieve.....	300	St. Flavien.....	300	St. Louis de	
Rock Forest.....	200	St. Cyrille.....	711	St. Gertrude.....	350	St. Fortunat.....	230	St. Louis de	
Rock Island.....	861	St. Cyrrille de		St. Helene, Bagot		St. Foy.....	250	Bonscours.....	230
Rougemont Station	300	St. Flavie.....	1,000	St. Helene de		St. Francois de		St. Louis de Gon-	
Roxton Falls.....	873	St. Flavia Station	800	St. Chester.....	200	Sales Sta.....	500	zague.....	700
Roxton Pond.....	500	St. Flore.....	350	St. Henedine.....	300	St. Francois		St. Louis de Ha Ha	450
Ruisseau le Blanc.....	325	St. Genevieve.....	300	St. Julie.....	250	d'Orleans.....	300	St. Luc.....	250
Sabrevois.....	200	St. Genevieve de		St. Julienne.....	300	St. Francois du		St. Ludger.....	400
Sacre-Cœur de Jesus	996	St. Gertrude.....	300	St. Justine de		St. Brompton.....	200	St. Malo.....	500
Sacre-Cœur de		St. Helene, Bagot		St. Luc Station.....	500	St. Frederic.....	375	St. Marc.....	400
Marie.....	300	St. Helene de		St. Lucie de		St. Gabriel de		St. Marcel, L'Islet	
St. Adelphie de		St. Brandon.....	300	Doncaster.....	1,350	Brandon.....	1,602	St. Marcel de	
Champlain.....	800	St. Damien.....	300	St. Elzear de		St. Gedeon.....	1,000	Richelleu.....	250
St. Adrien.....	200	St. Damien de		Laval.....	200	St. George de		St. Martin.....	450
St. Agapit.....	1,000	Buckland.....	350	St. Elzear de		St. George de		St. Mathias.....	300
St. Aime.....	800	St. David d'Yamaska	800	St. Elzear de		St. Germain de		St. Mathieu.....	350
St. Alban.....	1,200	St. Denis.....	200	St. Elzear de		St. Germain de		St. Maurice.....	400
St. Alexandre,		St. Denis, St.		St. Elzear de		Kamouraska.....	700	St. Michel.....	800
Iberville.....	1,000	Hyacinthe.....	733	St. Elzear de		St. Gervais.....	300	St. Michel de	
St. Alexandre.....	1,760	St. Didace.....	600	St. Elzear de		St. Giles.....	300	Rougemont.....	400
St. Alexis de		St. Dominique de		St. Elzear de					
Montcalm.....	1,000	Bagot.....	450	St. Elzear de					
St. Alexis des		St. Dominique Sta.	200	St. Elzear de					
Monts.....	1,150	St. Donat.....	800	St. Elzear de					
St. Alphonse.....	930	St. Donat de		St. Elzear de					
St. Alphonse de		Montcalm.....	325	St. Elzear de					
Granby.....	500	St. Adelaide de		St. Elzear de					
St. Andre.....	1,300	Pabos.....	600	St. Elzear de					
		St. Agathe de		St. Elzear de					
		Lotbiniere.....	375	St. Elzear de					

QUEBEC Cont'd.	QUEBEC Cont'd.	QUEBEC Cont'd.	SASK. Cont'd.	SASK. Cont'd.
St. Michel des Saints..... 200	St. Simon de Yamaska..... 500	Vaudreuil Station..... 300	Delmas..... 68	Maryfield..... 209
St. Michel de Wentworth..... 375	St. Sixte..... 250	Vercheres..... 725	Disley..... 99	Maymont..... 121
St. Modiste..... 250	St. Stanislas de Champlain..... 600	Verdun..... 11,629	Drinkwater..... 203	Melfort..... 599
St. Moise..... 500	St. Stanislas de Champlain..... 600	Victoriaville..... 3,028	Dubuc..... 161	Melville..... 1,816
St. Narcisse..... 600	Kostka..... 200	Village des Aulnais..... 500	Duck Lake..... 379	Middle..... 436
St. Nazaire, Bagot..... 400	St. Sulpice..... 300	Village Richelieu..... 500	Dundurn..... 239	Milestone..... 201
St. Nazaire, Dor..... 500	St. Sylvestre..... 3,000	Ville Marie..... 850	Elai Grey..... 154	Montmartre..... 201
St. Nicholas..... 400	St. Theophore..... 250	Ville St. Pierre..... 800	Elbow..... 221	Moosejaw..... Est. 30,000
St. Norbert..... 275	St. Theodore d'Acton..... 250	Vincennes..... 500	Elfron..... 103	Moosomin..... 1,143
Berthier..... 375	St. Theodore de Chertsey..... 1,425	Wakefield..... 350	Elstow..... 258	Morse..... 290
St. Octave..... 1,300	St. Theophile..... 250	Warden..... 928	Esterhazy..... 1,981	Mortlach..... 219
St. Odilon..... 300	St. Thomas de Weedon..... 500	Waterville..... 1,886	Estevan..... 250	Neudorf..... 326
St. Omer..... 500	Joliette..... 250	Waterloo..... 1,054	Expanse..... 182	Nokomis..... 374
St. Onesime..... 250	St. Thurbie..... 300	Way Mills..... 250	Eye-brow..... 96	No. Battleford Est. 5,500
St. Ours..... 622	St. Timothee..... 450	Weedon Centre..... 836	Fairlight..... 187	No. Portal..... 176
St. Pacome..... 1,500	St. Tite..... 1,438	Weedon Station..... 800	Fleming..... 180	Ogema..... 171
St. Pamphile..... 1,800	St. Tite des Caps..... 400	W. Broughton..... 500	Foam Lake..... 275	Outlook..... 685
St. Paschal..... 1,500	St. Ubalde..... 400	W. Shefford..... 363	Forget..... 267	Oxbow..... 630
St. Paul de Chester..... 650	St. Urbain du Chateauguay..... 300	Wickham West..... 500	Forêt Qu'Appelle..... 285	Paynton..... 121
St. Paul de la Croix..... 250	St. Valentin..... 300	Windsor Mills..... 2,233	Francis..... 141	Pemsel..... 236
St. Paul d'Industrie..... 300	St. Valere de Bulstrode..... 250	Woburn..... 350	Francis..... 263	Perdue..... 155
St. Paul du Buton..... 300	St. Valerien..... 300	Wolfeboro..... 250	Frobisher..... 120	Plenty..... 128
St. Paulin..... 800	St. Valier..... 400	Gainsboro..... 600	Glenavon..... 130	Preceville..... 235
St. Paul l'Hermite..... 450	St. Victor de Tring..... 900	Glen Ewen..... 965	Glen Ewen..... 168	Prince Albert Est. 11,000
St. Pauls Bay..... 1,857	St. Vincent de Paul..... 1,492	Godeve..... 695	Goodeve..... 71	Qu'Appelle..... 851
St. Philémon..... 400	St. Wenceslas..... 400	Govan..... 390	Grayson..... 124	Quill Lake..... 163
St. Philippe d'Argenteuil..... 375	St. Zacharie..... 500	Gravel..... 709	Griffen..... 109	Radisson..... 305
St. Philippe de Lanriviere..... 500	St. Zephirin..... 500	Grueney..... 175	Grueney..... 105	Radville..... 233
St. Philomene de Fortierville..... 1,600	Sandy Bay..... 500	Gull Lake..... 606	Gull Lake..... 300	Raymore..... 126
St. Pie..... 768	Sandy Beach Centre..... 275	Hague..... 317	Hague..... 239	Redvers..... 200
St. Pie de Guire..... 200	Saraguayville..... 300	Halbrite..... 283	Halbrite..... 239	REGINA Est. 40,000
St. Pierre aux Liens..... 2,201	Sault au Recollet..... 300	Harris..... 381	Harris..... 106	Rocanville..... 266
St. Pierre Baptiste..... 300	Scott Junction..... 933	Hawarden..... 126	Hawarden..... 300	Roche Perceé..... 162
St. Pierre les Becquets..... 600	Senneville..... 418	Herbert..... 559	Herbert..... 381	Rosetown..... 317
St. Pierre Montmagny..... 300	Seven Islands..... 800	Heward..... 132	Heward..... 112	Rosthern..... 1,172
St. Placide..... 575	Shawbridge..... 255	Howell..... 190	Howell..... 112	Rouleau..... 679
St. Polycarpe..... 467	Shawenegan Falls..... 4,265	Hudson Bay Junction..... 215	Hudson Bay Junction..... 112	Saltcoats..... 432
St. Polycarpe Jct..... 200	Shawville..... 745	Humboldt..... 859	Humboldt..... 126	Saskatoon Est. 28,000
St. Prosper..... 600	Sherbrooke..... 16,405	Indian Head..... 1,285	Indian Head..... 126	Scott..... 420
St. Prosper de Dorchester..... 250	Sherrington..... 450	Irua..... 135	Irua..... 95	Sedley..... 221
St. Prudentienne..... 510	Shigawake..... 500	Jasmin..... 130	Jasmin..... 130	Semans..... 194
St. Raphael East..... 900	Sillery Cove..... 300	Kamsack..... 473	Kamsack..... 473	Sheho..... 107
St. Raymond..... 1,653	Sorel..... 8,420	Keeler..... 316	Keeler..... 316	Shell Brook..... 198
St. Remi..... 1,021	So. Durham..... 400	Kellier..... 220	Kellier..... 220	Sintaluta..... 391
St. Remi d'Amherst..... 1,000	So. Ham..... 500	Kenaston..... 180	Kenaston..... 180	Southey..... 157
St. Remi de Tingwick..... 250	So. Stukely..... 360	Kennedy..... 145	Kennedy..... 145	Stockholm..... 100
St. Robert..... 350	Stanbridge E..... 600	Kerr Robert..... 320	Kerr Robert..... 320	Stoughton..... 311
St. Roch..... 850	Standon..... 600	Kinistone..... 120	Kinistone..... 120	Strassburg..... 811
St. Roch des Aulnais..... 850	Stanford..... 600	Kipling..... 118	Kipling..... 118	Sutherland..... 421
St. Roch l'Acigian..... 900	Stanstead..... 837	Kisbey..... 237	Kisbey..... 237	Swift Current Est. 5,000
St. Roman..... 250	Stoke Centre..... 300	Kronau..... 165	Kronau..... 165	Tantallon..... 115
St. Romuald..... 1,800	Stonefield..... 285	Kropan..... 102	Kropan..... 102	Theodore..... 193
St. Rosaire..... 250	Sutton..... 986	Lampman..... 130	Lampman..... 130	Tisdale..... 250
St. Samuel de Gay-hurst..... 300	Sweetsburg..... 305	Laird..... 702	Laird..... 702	Togo..... 111
Saints Anges..... 320	Tadousac..... 611	Landis..... 117	Landis..... 117	Tompkins..... 90
St. Sauveur des Montagnes..... 300	Terrebonne..... 1,990	Lang..... 228	Lang..... 228	Tugase..... 204
St. Sebastien de Beauce..... 600	Thetford Mines..... 7,261	Langenburg..... 301	Langenburg..... 301	Turford..... 151
St. Sebastien de Severe..... 250	Three Rivers..... 13,691	Langham..... 117	Langham..... 117	Tyvan..... 184
St. Severin de Beauvillage..... 500	Thurso..... 601	Langan..... 350	Langan..... 350	Unity..... 149
St. Simeon..... 512	Tingwick..... 350	Lanigan..... 389	Lanigan..... 389	Vanguard..... 300
St. Simon..... 400	Tremblay..... 1,000	Lashburn..... 435	Lashburn..... 435	Viceroy..... 325
	Trenholm..... 250	Leslie..... 358	Leslie..... 358	Vonda..... 268
	Trois Pistoles..... 3,000	Leros..... 469	Leros..... 469	Wadena..... 255
	Trois Saumons..... 400	Leslie..... 114	Leslie..... 114	Waldron..... 114
	Trout River..... 300	Lionel..... 232	Lionel..... 232	Wapella..... 485
	Upton..... 746	Lloydminster..... 222	Lloydminster..... 222	Warman..... 149
	Valcourt..... 850	Lloydminster..... 222	Lloydminster..... 222	Watrous..... 781
	Valleyfield..... 9,449	Lloydminster..... 222	Lloydminster..... 222	Watson..... 211
	Varennes..... 820	Lloydminster..... 222	Lloydminster..... 222	Wauchope..... 127
	Vaudreuil..... 444	Lloydminster..... 222	Lloydminster..... 222	Waywota..... 200
		Lloydminster..... 222	Lloydminster..... 222	Weyburn..... 2,210
		Lloydminster..... 222	Lloydminster..... 222	Whitehead..... 447
		Lloydminster..... 222	Lloydminster..... 222	Wilcox..... 262
		Lloydminster..... 222	Lloydminster..... 222	Wilkie..... 537
		Lloydminster..... 222	Lloydminster..... 222	Windthorst..... 208
		Lloydminster..... 222	Lloydminster..... 222	Wiseley..... 961
		Lloydminster..... 222	Lloydminster..... 222	Wynyard..... 515
		Lloydminster..... 222	Lloydminster..... 222	Yellow Grass..... 459
		Lloydminster..... 222	Lloydminster..... 222	Yorkton..... 2,309
		Lloydminster..... 222	Lloydminster..... 222	Zealandia..... 264

CITIES AND TOWNS OF THE UNITED STATES

of five thousand or more inhabitants

LATEST CENSUS

Capitals of States are indicated by asterisk*

Population figures in heavy face type are official estimates of Bureau of Census of July 1st, 1914.

† Official State Census figures for 1915.

■ Population of Township.

Aberdeen, S. Dak.†	11,846	Baker City, Ore.	6,742	Brainerd, Minn.	8,951	Chelsea, Mass.†	43,426
Aberdeen, Wash.	18,220	Bakersfield, Cal.	15,538	Braintree, Mass.†	9,343	Chester, Pa.	40,474
Abilene, Tex.	12,806	Baltimore, Md.	579,580	Brattleboro, Vt.	6,517	Cheyenne, Wyo.*†	9,661
Abington, Mass.†	5,646	Bangor, Me.	26,061	Brazil, Ind.	10,001	Chicago, Ill.	2,393,325
Ada, Okla.	5,000	Bangor, Pa.	5,309	Brewer, Me.	5,667	Chicago Heights, Ill.	19,560
Adams, Mass.†	13,218	Baraboo, Wis.	6,324	Bridgeport, Conn.	115,289	Chickasha, Okla.	13,873
Adrian, Mich.	10,234	Barberton, Ohio.	12,082	Bridgeport, N. J.†	13,611	Chicopee, Mass.†	30,138
Akron, Ohio.	80,201	Barre, Vt.	11,708	Bridgewater, Mass.†	9,381	Chicopee Falls, Mass.	8,500
Alameda, Cal.	26,330	Bartlesville, Okla.	6,181	Bristol, Conn.	15,145	Chillicothe, Mo.	6,265
Albany, Ga.	8,190	Batavia, N. Y.†	13,278	Bristol, Pa.	10,172	Chillicothe, Ohio.	15,160
Albany, N. Y.*†	107,979	Bath, Me.	9,396	Bristol, R. I.†	10,302	Chippewa Falls, Wis.	9,233
Albert Lea, Minn.	6,192	Bath, N. Y.†	5,449	Bristol, Tenn.	7,148	Chisholm, Minn.	7,684
Albia, Iowa†	5,138	Baton Rouge, La.*	16,442	Bristol, Va.	6,247	Cicero, Ill.	18,230
Albion, Mich.	5,833	Battle Creek, Mich.	28,122	Brockton, Mass.†	62,288	Cincinnati, Ohio.	402,175
Albion, N. Y.	5,988	Bay City, Mich.	47,047	Brookfield, Mo.	5,749	Cirleville, Ohio.	6,744
Albuquerque, N. M.	19,057	Bayonne, N. J.†	64,461	Brookhaven, Miss.	5,293	Claremont, N. H.	6,800
Alexandria, Ind.	5,096	Beardstown, Ill.	6,107	Brookline, Mass.†	33,490	Clarksburg, W. Va.	11,394
Alexandria, La.	13,582	Beatrice, Neb.	8,987	Brownsville, Tex.	12,310	Clarksville, Tenn.	8,548
Alexandria, Va.	18,670	Beaumont, Tex.	25,433	Brownwood, Tex.	6,967	Clefield, Pa.	6,851
Alhambra, Cal.	5,021	Beaumont, Wis.	6,758	Brunswick, Ga.	10,649	Cleburne, Tex.	11,587
Allentown, Pa.	60,297	Beaver Falls, Pa.	13,100	Brunswick, Me.	5,341	Cleveland, Ohio.	639,431
Alliance, Ohio.	17,718	Beacon, N. Y.†	10,825	Bucyrus, Ohio.	8,122	Cleveland, Tenn.	5,549
Alpena, Mich.	13,089	Bedford, Ind.	9,823	Buffalo, N. Y.†	461,887	Clifton, N. J.†	8,100
Altamont, N. Y.	22,092	Bellaire, Ohio.	13,898	Burlington, Iowa†	24,261	Clifton Forge, Va.	5,743
Altuna, Pa.	58,553	Bellefontaine, Ohio.	8,915	Burlington, N. J.†	9,044	Clinton, Ill.	5,165
Amarillo, Tex.	13,585	Bellevue, Ill.	21,139	Burlington, Vt.	21,247	Clinton, Ind.	6,229
Ambridge, Pa.	5,205	Belleville, N. J.†	11,996	Butler, Pa.	25,543	Clinton, Iowa†	26,091
Amesbury, Mass.	8,063	Bellevue, Ky.	6,683	Butte, Mont.	41,781	Clinton, Mass.†	13,192
Amesbury, Mass.†	8,543	Bellevue, Ohio.	5,209	Cadillac, Mich.	9,387	Cloquet, Minn.	7,031
Amherst, Mass.†	5,558	Bellevue, Pa.	6,323	Cairo, Ill.	15,392	Coal Dale, Pa.	5,154
Amsterdam, N. Y.†	34,319	Bellingham, Wash.	29,937	Calais, Me.	6,116	Coalgate, Okla.	6,000
Anaconda, Mont.	10,424	Belmont, Mass.†	8,081	Calumet, Mich.	30,000	Cossville, Pa.	13,389
Anderson, Ind.	23,453	Beloit, Wis.	17,122	Cambridge, Md.	6,407	Coeur d'Alene, Idaho.	7,291
Anderson, S. C.	11,424	Belvidere, Ill.	7,253	Cambridge, Mass.†	108,882	Coffeyville, Kan.†	15,228
Andover, Mass.	7,978	Bemidji, Minn.	5,009	Cambridge, Ohio.	12,640	Cohoes, N. Y.†	23,433
Annapolis, Md.*	8,643	Bennington, Vt.	8,980	Camden, N. J.†	102,215	Coldwater, Mich.	5,945
Ann Arbor, Mich.	14,948	Benton Harbor, Mich.	10,301	Canal Dover, Ohio.	6,621	Collingswood, N. J.†	6,600
Annisland, Ala.	13,686	Berkeley, Cal.	52,150	Canandaigua, N. Y.†	7,501	Collinsville, Ill.	7,478
Ansonia, Conn.	16,204	Berkley, Pa.	5,700	Canon City, Colo.	5,162	Colorado Sprs., Colo.	31,717
Antigo, Wis.	7,196	Berlin, N. H.	13,013	Canton, Ill.	12,438	Columbia, Me.	11,371
Appleton, Wis.	17,492	Berwick, Pa.	5,357	Canton, Mass.†	5,623	Columbia, Pa.	11,454
Archbald, Pa.	7,194	Berwyn, Ill.	5,841	Canton, Ohio.	57,428	Columbia, S. C.*	33,506
Ardmore, Okla.	8,868	Bessemer, Ala.	15,360	Cape Girardeau, Mo.	10,033	Columbia, Tenn.	5,754
Argenta, Ark.	13,683	Bethlehem, Pa.	13,721	Carbondale, Ill.	5,411	Columbus, Ga.	21,805
Arkansas City, Kan.†	7,775	Beverly, Mass.†	22,959	Carbondale, Pa.	18,532	Columbus, Ind.	9,103
Arlington, Mass.†	14,389	Biddford, Me.	17,475	Carlisle, Pa.	10,589	Columbus, Miss.	10,053
Arlington, N. J.	6,000	Billings, Mont.	13,020	Carnegie, Pa.	11,150	Columbus, Neb.	5,014
Asbury Park, N. J.†	10,910	Biloxi, Miss.	9,147	Carrick, Pa.	6,117	Columbus, Ohio.	204,567
Asheville, N. C.	20,157	Binghamton, N. Y.†	53,668	Carson City, Nev.*	2,466	Concord, Mass.†	6,681
Ashtabula, Ky.	9,482	Birmingham, Ala.	169,154	Carthage, Mo.	8,510	Concord, N. H.*	22,291
Ashtabula, Ohio.	6,720	Bisbee, Ariz.	9,019	Catawba, Pa.	5,250	Concord, N. C.	8,715
Ashtabula, Ohio.	5,020	Bismarck, N. Dak.*†	6,344	Catskill, N. Y.†	5,371	Concord, Kan.†	5,229
Ashtabula, Pa.	6,855	Blackstone, Mass.†	5,689	Cedar Falls, Iowa†	6,284	Concord, Ohio.	8,224
Ashtabula, Wis.	11,584	Blakely, Pa.	5,345	Cedar Rapids, Iowa†	40,667	Connellsville, Pa.	14,613
Ashley, Pa.	5,601	Bloomfield, N. J.†	17,306	Centerville, Iowa†	7,803	Connorsville, Ind.	7,738
Ashutabula, Ohio.	20,478	Bloomington, Ill.	20,850	Central Falls, R. I.†	23,708	Conshohocken, Pa.	7,430
Astoria, Ore.	10,117	Bloomington, Ind.	8,850	Centralia, Ill.	10,988	Coraopolis, Pa.	5,252
Atchison, Kan.†	15,263	Bloomington, Pa.	7,413	Centralia, Wash.	7,311	Cordoba, Pa.	5,883
Athens, Ga.	16,900	Bluefield, W. Va.	13,974	Chambersburg, Pa.	12,192	Corinth, Miss.	5,020
Athens, Ohio.	5,463	Blue Island, Ill.	8,864	Champaign, Ill.	13,835	Corning, N. Y.†	13,459
Atol, Mass.†	9,743	Boise, Idaho*	26,637	Chanute, Kan.†	9,033	Corpus Christi, Tex.	9,720
Atlanta, Ga.*	179,292	Boone, Iowa†	12,253	Charleroi, Pa.	11,186	Corry, Pa.	5,991
Atlantic City, N. J.†	51,667	Boston, Mass.*†	745,439	Charles City, Iowa†	6,374	Corsicana, Tex.	9,834
Attleboro, Mass.†	18,480	Boulder, Colo.	10,983	Charleston, Ill.	5,884	Cortland, N. Y.†	12,167
Auburn, Me.	15,963	Boundbrook, N. J.†	5,152	Charleston, S. C.	60,121	Coshocton, Ohio.	10,938
Auburn, N. Y.†	32,468	Bowling Green, Ky.	9,597	Charleston, W. Va.*	27,703	Coshocton, Ohio	31,354
Augusta, Ga.	49,451	Bowling Green, Ohio.	5,222	Charlotte, N. C.	37,951	Council Bluffs, Iowa†	31,569
Augusta, Me.*	13,880	Boyne City, Mich.	5,213	Charlottesville, Va.	6,765	Covington, Ky.	85,898
Aurora, Ill.	33,022	Bozeman, Mont.	5,107	Chattanooga, Tenn.	57,077	Cranston, R. I.†	26,940
Austin, Minn.	6,960	Bradock, Pa.	20,933	Cheboygan, Mich.	6,859	Crawfordsville, Ind.	10,808
Austin, Tex.*	33,218	Bradford, Pa.	14,544	Chelmsford, Mass.†	5,182	Creston, Iowa†	7,572

Cripple Creek, Colo.	6,206	Escanaba, Mich.	14,747	Grafton, Mass.†	6,250	Huntington, Ind.	10,479
Crookston, Minn.	7,559	Etna, Pa.	5,830	Grafton, W. Va.	7,563	Huntington, W. Va.	41,515
Crowley, La.	5,099	Eugene, Ore.	12,083	Grand Forks, N. Dak.†	13,554	Huntsville, Ala.	7,611
Cumberland, Md.	23,846	Eureka, Cal.	13,768	Grand Haven, Mich.	5,856	Huron, S. Dak.†	6,012
Cumberland, Mass.†	9,929	Evansville, Ind.	27,724	Grand Island, Neb.	11,505	Hutchinson, Kan.†	19,200
Dallas, Tex.	111,986	Evanston, Ill.	71,284	Grand Junction, Colo.	7,754	Hyde Park, Mass.†	15,507
Dalton, Ga.	5,324	Eveleth, Minn.	7,036	Grand Rapids, Mich.	123,227	Ilion, N. Y.†	8,900
Danbury, Conn.	21,808	Everett, Mass.†	37,718	Grand Rapids, Wis.	6,521	Independence, Kan.†	12,144
Danvers, Mass.†	11,177	Everett, Wash.	32,048	Granite City, Ill.	13,647	Independence, Mo.	11,088
Danville, Ill.	30,847	Fairbury, Neb.	5,294	Great Barrington, Mass.†	6,627	Indiana, Pa.	5,749
Danville, Ky.	5,420	Fairfield, Iowa†	6,113	Great Falls, Mont.	13,948	Indianapolis, Ind.*	259,413
Danville, Pa.	7,517	Fairhaven, Mass.†	6,277	Greeley, Colo.	10,376	Indian Orchard, Mass.	6,200
Danville, Va.	19,697	Fairmont, W. Va.	11,934	Greenbay, Wis.	28,026	Iola, Kan.†	7,866
Darby, Pa.	6,305	Fall River, Mass.†	124,791	Greenfield, Mass.†	12,618	Ionia, Mich.	5,030
Dartmouth, Mass.†	5,330	Fargo, N. Dak.†	20,549	Greensboro, N. C.	18,391	Iowa City, Iowa†	12,033
Davenport, Iowa.†	48,483	Faribault, Minn.	9,482	Greensburg, Ind.	5,420	Ipswich, Mass.†	6,272
Dayton, Ky.	6,979	Farrell, Pa.	10,190	Greenville, Miss.	10,448	Iron Mountain, Mich.	9,216
Dayton, Ohio.	123,794	Fayetteville, N. C.	7,045	Greenville, Ohio.	17,395	Ironton, Ohio.	13,690
Decatur, Ill.	37,525	Fergus Falls, Minn.	6,887	Greenville, Pa.	5,909	Ironwood, Mich.	14,147
Dedham, Mass.†	11,043	Findlay, Ohio.	14,858	Greenville, S. C.	17,395	Irrington, N. J.†	20,342
Defiance, Ohio.	7,327	Fitchburg, Mass.†	39,656	Greenville, Tex.	9,696	Ishpeming, Mich.	12,448
DeKalb, Ill.	9,036	Fitzgerald, Ga.	5,795	Greenwood, Miss.	5,836	Ithaca, N. Y.†	16,750
Delaware, Ohio.	9,560	Flat River, Mo.	5,112	Greenwood, S. C.	6,614	Jackson, Mich.	34,097
Delphos, Ohio.	5,038	Flint, Mich.	49,546	Griffin, Ga.	7,478	Jackson, Miss.*	26,980
Denison, Tex.	14,409	Florence, Ala.	6,689	Gulftport, Miss.	6,386	Jackson, Ohio.	5,468
Denver, Colo.*	245,523	Florence, S. C.	7,057	Guthrie, Okla.	11,911	Jackson, Tenn.	16,318
Derby, Conn.	9,441	Fond du Lac, Wis.	20,367	Guttenberg, N. J.†	6,322	Jacksonville, Fla.	70,173
Des Moines, Iowa.†	105,652	Forest City, Pa.	5,749	Hacksack, N. J.†	14,050	Jacksonville, Ill.	15,431
Detroit, Mich.	537,650	Forest Park, Ill.	6,594	Hagerstown, Md.	17,749	Jamestown, N. Y.†	37,780
Devils Lake, N. Dak.†	4,525	Fort Collins, Colo.	10,407	Hamilton, Ohio.	38,814	Jamestown, N. Dak.†	5,500
Dickson City, Pa.	11,198	Fort Dodge, Iowa†	19,372	Hammond, Ind.	24,481	Janesville, Wis.	14,195
Dixon, Ill.	7,216	Fort Lee, N. J.†	5,288	Hammond, N. J.†	5,896	Jeannette, Pa.	9,020
Donora, Pa.	3,174	Fort Madison, Iowa†	9,507	Hampton, Va.	5,505	Jefferson City, Mo.*	12,780
Dothan, Ala.	7,016	Fort Scott, Kan.†	11,422	Hancock, Mich.	11,031	Jeffersonville, Ind.	10,412
Douglas, Ariz.	6,437	Fort Smith, Ark.	27,136	Hannibal, Mo.	20,710	Jersey City, N. J.†	270,903
Dover, Del.*	3,720	Fort Wayne, Ind.	72,322	Hanover, Pa.	7,057	Jersey Shore, Pa.	5,381
Dover, N. H.	13,284	Fort Worth, Tex.	94,494	Harrisburg, Ill.	5,309	Johnson City, N. Y.†	5,400
Dover, N. J.†	8,971	Fostoria, Ohio.	10,392	Harrisburg, Pa.*	69,493	Johnson City, Tenn.	10,143
Dowagiac, Mich.	5,088	Frankingham, Mass.†	15,860	Harrison, N. J.†	14,520	Johnstown, N. Y.†	10,688
Dublio, Ga.	5,795	Frankfort, Ky.*	10,882	Hartford, Conn.*	107,038	Johnstown, Pa.	64,842
Dubois, Pa.	14,007	Franklin, Mass.†	6,440	Hartford City, Ind.	6,187	Joliet, Ill.	36,934
Dubuque, Iowa.†	41,795	Franklin, N. H.	6,132	Harvey, Ill.	7,227	Jonesboro, Ark.	7,123
Duluth, Minn.	89,331	Franklin, Pa.	10,811	Hastings, Neb.	10,252	Joplin, Mo.	32,848
Dunkirk, N. Y.†	17,370	Frederick, Md.	10,866	Hastings on Hudson, N. Y.†	5,461	Junction City, Kan.†	5,798
Dunmore, Pa.	19,757	Fredericksburg, Va.	5,874	Hattiesburg, Miss.	14,952	Junata, Pa.	5,285
Duquesne, Pa.	18,576	Fredonia, N. Y.†	5,382	Haverhill, Mass.†	49,450	Kalamazoo, Mich.	45,842
Duquoin, Ill.	5,454	Freeland, Pa.	6,197	Haverhill, N. Y.†	5,418	Kalispell, Mont.	5,549
Durant, Okla.	5,330	Freeport, Ill.	19,018	Hazelton, Pa.	27,511	Kane, Pa.	6,626
Durham, N. C.	22,863	Freeport, N. Y.†	7,463	Helena, Ark.	10,144	Kankakee, Ill.	14,150
Dursey, Pa.	7,487	Fremont, Neb.	9,345	Helena, Mont.*	13,258	Kansas City, Kan.†	91,658
East Chicago, Ind.	25,781	Fremont, Ohio.	10,578	Hempstead, N. Y.†	6,073	Kansas City, Mo.†	281,911
East Cleveland, Ohio.	11,914	Fresno, Cal.	29,908	Henderson, Ky.	11,953	Kearney, Neb.	6,202
East Conemaugh, Pa.	5,046	Frostburg, Md.	6,028	Herkimer, N. Y.†	9,580	Kearny, N. J.†	22,150
East Hampton, Mass.†	9,845	Fulton, Mo.	5,228	Herrin, Ill.	6,861	Keene, N. H.	10,451
East Hartford, Conn.	8,875	Fulton, N. Y.†	11,138	Hibbing, Minn.	12,211	Kenosha, Wis.	26,062
East Liverpool, Ohio.	21,877	Gadsden, Ala.	13,326	Highpoint, N. C.	11,810	Kenton, Ohio.	7,185
Easton, Pa.	29,882	Gainesville, Fla.	6,183	Hillsboro, Tex.	6,115	Keokuk, Iowa†	15,239
East Orange, N. J.†	40,961	Gainesville, Ga.	5,925	Hillsdale, Mich.	5,001	Kewanee, Ill.	13,473
East Pittsburg, Pa.	5,615	Gainesville, Tex.	7,624	Hingham, Mass.†	5,264	Key West, Fla.	21,150
East Providence, R.I.†	18,584	Galesburg, Ill.	23,570	Hoboken, N. J.†	67,611	Kingston, N. Y.†	26,354
East Saint Louis, Ill.	89,502	Gallion, Ohio.	7,214	Holland, Mich.	11,639	Kingston, Pa.	6,449
Eau Claire, Wis.	18,847	Gallipolis, Ohio.	5,560	Holyoke, Mass.†	60,816	Kinston, N. C.	6,995
Edwardsville, Ill.	5,014	Galveston, Tex.	40,289	Hornell, N. Y.†	14,352	Kirksville, Mo.	6,347
Edwardsville, Pa.	9,787	Gardiner, Me.	5,311	Hot Springs, Ark.	16,334	Knoxville, Pa.	5,651
Elberton, Ga.	6,483	Gardner, Mass.†	16,376	Houghton, Mich.	5,113	Knoxville, Tenn.	37,924
Elgin, Ill.	27,435	Garfield, N. J.†	15,455	Houlton, Me.	5,700	Kokomo, Ind.	19,694
Elizabeth, N. J.†	82,036	Gary, Ind.	16,802	Houma La.	5,024	Lackawanna, N. Y.†	14,549
Elizabeth City, N. C.	9,292	Gastonia, N. C.	5,759	Houston, Tex.	93,122	Laconia, N. H.	11,094
Elkhart, Ind.	21,028	Geneva, N. Y.†	13,232	Houston Heights, Tex.	6,984	La Crosse, Wis.	31,367
Elkins, W. Va.	5,260	Georgetown, S. C.	5,530	Hudson, Mass.†	6,758	Lafayette, Ind.	20,896
Elmira, N. Y.†	40,073	Gilberton, Pa.	5,401	Hudson, N. Y.†	11,544	Lafayette, La.	6,392
El Paso, Tex.	49,505	Glassport, Pa.	5,540	Hudson Falls, N. Y.†	5,585	Lagrange, Ga.	5,587
El Reno, Okla.	7,872	Glen Falls, N. Y.†	16,323	Hugo, Okla.	5,000	Lagrange, Ill.	5,282
Elwood, Ind.	11,028	Globe, Ariz.	7,083	Huntingdon, Pa.	6,861	Lake Charles, La.	13,481
Elyria, Ohio.	17,398	Gloucester, Mass.†	24,478			Lake City, Fla.	5,032
Emporia, Kan.†	10,664	Gloucester City, N. J.†	10,554			Lakewood, Ohio.	20,219
Endicott, N. Y.†	5,581	Groversville, N. Y.†	21,178			Lancaster, Ohio.	14,840
Englewood, N. J.†	11,071	Goldsboro, N. C.	6,107			Lancaster, Pa.	49,685
Enid, Okla.	18,209	Goshen, Ind.	8,813			Lansford, Pa.	8,781
Ennis, Tex.	5,669					Lansing, Mich.*	37,512
Erie, Pa.	72,401					Laporte, Ind.	12,533

POPULATION OF THE UNITED STATES

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Laramie, Wyo.....	8,250	Marion, Ohio.....	22,032	Muscataine, Iowa †.....	15,785	Oelwein, Iowa. †.....	7,137
Laredo, Tex.....	15,461	Marlboro, Mass. †.....	15,250	Muskegon, Mich.....	25,442	Ogden, Utah.....	29,528
Larksville, Pa.....	9,288	Marquette, Mich.....	12,117	Muskego, Okla.....	33,309	Ogdenburg, N. Y. †.....	14,338
La Salle, Ill.....	12,000	Marshall, Tex.....	12,984	Nanticoke, Pa.....	21,756	Oil City, Pa.....	18,645
Las Vegas, N. M.....	3,179	Marshalltown, Iowa †.....	5,063	Napa, Cal.....	5,791	Oklahoma, Okla.....	83,559
Latrobe, Pa.....	10,549	Marshfield, Wis.....	5,783	Nashua, N. H.....	26,901	Old Forge, Pa.....	13,748
Laurel, Miss.....	10,711	Martinsburg, W. Va.....	12,032	Nashville, Tenn.*.....	114,899	Oldtown, Me.....	6,317
Laurium, Mich.....	9,770	Martins Ferry, Ohio.....	8,718	Natchez, Miss.....	11,791	Olean, N. Y. †.....	17,925
Lawrence, Kan. †.....	12,884	Marysville, Cal.....	5,430	Natick, Mass. †.....	11,119	Olney, Ill.....	5,011
Lawrence, Mass. †.....	90,259	Mason City, Iowa †.....	17,152	Naugatuck, Conn.....	13,851	Olympia, Wash.*.....	6,996
Lawton, Okla.....	7,783	Massillon, Ohio.....	14,912	Nebraska City, Neb.....	5,488	Olyphant, Pa.....	9,494
Lead, S. Dak. †.....	8,128	Matteawan, N. Y.....	6,727	Needham, Mass. †.....	6,542	Omaha, Neb.....	133,274
Leadville, Colo.....	7,508	Mattson, Ill.....	12,218	Neenah, Wis.....	5,734	Oneida, N. Y. †.....	9,461
Leavenworth, Kan. †.....	22,090	Mayfield, Ky.....	5,916	Negaunee, Mich.....	9,103	Oneonta, N. Y. †.....	10,474
Lebanon, Ind.....	5,474	Mayville, Mass. †.....	6,770	Nelsonville, Ohio.....	6,082	Orange, Conn.....	13,094
Lebanon, N. H.....	5,718	Mayville, Ky.....	6,141	Nevada, Mo.....	7,176	Orange, Mass. †.....	5,379
Lebanon, Pa.....	19,926	Meadville, Ill.....	8,783	New Albany, Ind.....	20,629	Orange, N. J. †.....	29,805
Lehigh, Pa.....	5,316	Mechanicsville, N. Y. †.....	8,208	Newark, N. J. †.....	366,721	Orange, Tex.....	5,527
Leominster, Mass. †.....	17,646	Medford, Mass. †.....	30,509	Newark, N. Y. †.....	6,468	Orangeburg, S. C.....	5,906
Lewiston, Idaho.....	6,043	Medford, Ore.....	12,490	Newbern, N. C.....	10,281	Oskaloosa, Iowa. †.....	10,485
Lewiston, Me.....	27,305	Medina, N. Y. †.....	6,079	Newberry, S. C.....	5,028	Ossining, N. Y. †.....	10,326
Lewistown, Pa.....	9,748	Melrose, Mass. †.....	16,880	New Brighton, Pa.....	8,971	Oswego, N. Y. †.....	25,426
Lexington, Ky.....	38,819	Memphis, Tenn.....	143,231	New Britain, Conn.....	50,612	Ottawa, Ill.....	9,535
Lexington, Mass. †.....	5,538	Menasha, Wis.....	6,081	New Brunswick, N. J.....	130,019	Ottawa, Kan. †.....	9,127
Lexington, Mo.....	5,242	Menominee, Mich.....	10,507	Newburgh, N. Y. †.....	27,876	Ottumwa, Iowa †.....	22,438
Lima, Ohio.....	33,904	Meriden, Conn.....	28,528	Newburg, Ohio.....	5,813	Owatonna, Minn.....	5,658
Lincoln, Ill.....	11,532	Meridian, Miss.....	21,806	Newburyport, Mass. †.....	15,311	Owensboro, Ky.....	18,011
Lincoln, Neb.*.....	45,843	Merrill, Wis.....	8,752	Newcastle, Ind.....	12,017	Owosso, Mich.....	10,039
Linton, Ind.....	5,906	Methuen, Mass. †.....	14,007	New Castle, Pa.....	39,589	Paduach, Ky.....	24,170
Litchfield, Ill.....	5,971	Mexico, Mo.....	5,939	New Decatur, Ala.....	6,118	Painesville, Ohio.....	5,501
Little Falls, Minn.....	6,078	Miami, Fla.....	5,471	New Haven, Conn.....	144,505	Palestine, Tex.....	11,412
Little Falls, N. Y. †.....	13,022	Middleton City, Ind.....	20,710	New Iberia, La.....	7,499	Palmer, Mass. †.....	9,468
Little Rock, Ark.*.....	53,591	Middleboro, Mass. †.....	8,631	New Kensington, Pa.....	7,707	Pana, Ill.....	6,055
Livingston, Mont.....	5,359	Middleboro, Ky.....	7,305	New London, Conn.....	20,557	Paragould, Ark.....	5,248
Lock Haven, Pa.....	7,772	Middletown, Conn.....	12,815	Newman, Ga.....	5,548	Paris, Ill.....	7,664
Lockport, N. Y. †.....	18,639	Middletown, N. Y. †.....	17,381	New Orleans, La.....	361,221	Paris, Ky.....	5,859
Lodi, N. J. †.....	6,379	Middletown, Ohio.....	14,827	New Philadelphia, Ohio.....	9,470	Paris, Tex.....	12,081
Logan, Utah.....	7,522	Middletown, Pa.....	5,374	Newport, Ky.....	31,517	Park, Tenn.....	5,126
Logansport, Ind.....	20,262	Midford, Mass. †.....	13,634	Newport, R. I. †.....	30,472	Parkersburg, W. Va.....	19,719
Long Beach, Cal.....	24,437	Millbury, Mass. †.....	5,295	Newport News, Va.....	20,446	Parsons, Kan.....	12,118
Long Branch, N. J. †.....	14,565	Millville, Pa.....	7,861	New Rochelle, N. Y. †.....	31,758	Passadena, Cal.....	40,820
Longview, Tex.....	5,155	Millville, N. J. †.....	13,307	New Rochelle, N. Y. †.....	31,758	Passaic, N. J. †.....	61,225
Lorain, Ohio.....	24,360	Milton, Mass. †.....	8,600	Newton, Kan. †.....	7,620	Patterson, N. J. †.....	124,815
Los Angeles, Cal.....	238,914	Milton, Pa.....	7,460	Newton, Mass. †.....	43,113	Pawtucket, R. I. †.....	55,335
Louisville, Ky.....	235,114	Minersville, Pa.....	417,064	Newtonville, Mass.....	5,700	Peabody, Mass. †.....	18,625
Lowell, Mass. †.....	107,978	Minneapolis, Minn.....	343,466	New Ulm, Minn.....	5,648	Peekskill, N. Y. †.....	15,502
Ludington, Mich.....	6,251	Minot, N. Dak. †.....	10,053	New York, N. Y. †.....	5,585,772	Pekin, Ill.....	10,524
Ludlow, Mass. †.....	5,426	Mishawaka, Ind.....	14,679	Niagara Falls, N. Y. †.....	42,257	Pensacola, Fla.....	25,212
Luzerne, Pa.....	31,630	Missoula, Mont.....	7,785	Niles, Mich.....	5,156	Peoria, Ill.....	70,006
Lynchburg, Va.....	95,803	Mitchell, S. Dak. †.....	12,162	Niles, Mich.....	5,156	Perth Amboy, N. J. †.....	39,719
Lynn, Mass. †.....	95,803	Mobile, Mo.....	6,237	Noblesville, Ind.....	5,073	Perry, Iowa †.....	5,455
Lyons, Iowa †.....	5,700	Mobile, Ala.....	55,573	Norfolk, Neb.....	6,025	Peru, Ill.....	7,984
McAlester, Okla.....	16,718	Moline, Ill.....	26,403	Norfolk, Va.....	88,640	Peru, Ind.....	11,779
McComb, Miss.....	6,237	Monaca, Pa.....	18,782	Norristown, Pa.....	30,265	Petaluma, Cal.....	5,880
McKeesport, Pa.....	48,985	Monmouth, Ill.....	9,639	North Adams, Mass. †.....	22,035	Petersburg, Va.....	25,112
McKees Rocks, Pa.....	16,358	Monongahela, Pa.....	7,598	Northampton, Mass. †.....	121,654	Philadelphia, Pa.....	1,867,810
Macomb, Ill.....	5,774	Monroe, La.....	12,248	Northampton, Pa.....	8,729	Phillipsburg, N. J. †.....	15,430
Macon, Ga.....	41,982	Monroe, Mich.....	6,893	Northampton, Pa.....	8,729	Phoenix, Ariz.*.....	16,870
Madison, Ill.....	5,046	Montague, Mass. †.....	7,925	North Andover, Mass. †.....	5,956	Phoenixville, Pa.....	10,010
Madison, Ind.....	29,468	Montclair, N. J. †.....	25,029	North Attleboro, Mass. †.....	9,398	Pierre, S. Dak. †.....	3,743
Madison, Wis.*.....	5,193	Montgomery, Ala.*.....	41,777	North Braddock, Pa.....	14,076	Piqua, Ohio.....	16,743
Madisonville, Ohio.....	5,193	Montpelier, Vt.*.....	7,856	Northbridge, Mass. †.....	9,254	Pittsburg, Kan. †.....	17,685
Mahanoy City, Pa.....	16,971	Morenc, Ariz.....	5,010	North Plainfield, N. J. †.....	6,037	Pittsburgh, Pa.....	564,878
Malden, Mass. †.....	48,907	Morgan City, La.....	12,239	North Tarrytown, N. Y. †.....	5,421	Pittsfield, Mass. †.....	17,847
Malone, N. Y. †.....	7,404	Morgantown, W. Va.....	13,036	North Tonawanda, N. Y. †.....	13,498	Pittston, Pa.....	17,607
Mamaroneck, N. Y. †.....	7,290	Morrisville, N. J. †.....	10,403	North York, N. Y. †.....	13,498	Plainfield, N. J. †.....	24,516
Manchester, Conn. †.....	14,935	Moundsville, W. Va.....	6,934	Norwalk, Conn.....	28,033	Plattsburgh, N. Y. †.....	10,134
Manchester, N. H.....	75,685	Mt. Carmel, Ill.....	6,934	Norwalk, Ohio.....	7,858	Plymouth, Mass. †.....	12,926
Manchester, Va.....	12,200	Mt. Carmel, Pa.....	19,386	Norwalk, Ohio.....	7,858	Plymouth, Pa.....	18,422
Manhattan, Kan. †.....	6,816	Mt. Clemens, Mich.....	7,707	Norwich, Conn.....	20,982	Pomona, Cal.....	6,090
Manistee, Mich.....	12,381	Mt. Pleasant, Pa.....	5,812	Norwich, N. Y. †.....	9,342	Pontiac, Ill.....	16,580
Manitowoc, Wis.....	10,365	Mt. Vernon, Ill.....	9,194	Norwood, Mass. †.....	10,977	Pontiac, Mich.....	16,580
Mankato, Minn.....	10,365	Mt. Vernon, Ind.....	5,563	Norwood, Mass. †.....	10,977	Port Arthur, Tex.....	7,663
Mansfield, Mass. †.....	5,772	Mt. Vernon, N. Y. †.....	37,583	Norwood, Mass. †.....	10,977	Port Chester, N. Y. †.....	15,129
Mansfield, Ohio.....	22,100	Mt. Vernon, Ohio.....	10,131	Oakland, Cal.....	183,002	Port Huron, Mich.....	18,863
Marblehead, Mass. †.....	7,606	Muncie, Ind.....	24,589	Oak Park, Ill.....	24,330	Port Jervis, N. Y. †.....	9,413
Marietta, Ga.....	5,949	Munhall, Pa.....	5,185	Oconto, Wis.....	5,629		
Marietta, Ohio.....	12,923	Murphysboro, Ill.....	7,485				
Marinette, Wis.....	14,610						
Marion, Ill.....	7,093						
Marion, Ind.....	19,658						

Portland, Ind.....	5,130	Salem, Ohio.....	9,523	Stonington, Conn.■	9,415	Washington, N. C.....	6,211
Portland, Me.....	62,161	Salem, Ore.*	18,268	Stoughton, Mass.■	6,952	Washington, Pa.....	20,702
Portland, Ore.....	260,601	Salina, Kan.†	10,488	Streator, Ill.....	14,267	Washington C. H., Ohio.....	7,217
Portsmouth, N. H.....	11,538	Salisbury, Md.....	6,690	Suffolk, Va.....	7,008	Waterbury, Conn.....	82,517
Portsmouth, Ohio.....	27,511	Salisbury, N. C.....	7,153	Sulphur Springs, Tex.....	5,151	Waterloo, Iowa.†	33,097
Portsmouth, Va.....	37,569	Salt Lake City, Utah*	109,530	Summit, N. J.†	9,136	Watertown, Mass.■	16,515
Pottstown, Pa.....	16,408	San Angelo, Tex.....	10,321	Sumter, S. C.....	9,145	Watertown, N. Y.†	26,895
Pottsville, Pa.....	21,684	San Antonio, Tex.....	116,063	Sunbury, Pa.....	15,458	Watertown, S. Dak.†	8,313
Poughkeepsie, N. Y.†	32,714	San Bernardino, Cal.....	15,603	Superior, Wis.....	44,344	Watertown, Wis.....	12,300
Prescott, Ariz.....	5,092	San Diego, Cal.....	48,900	Swampscott, Mass.†	7,345	Waterville, Me.....	14,990
Princeton, Ind.....	6,448	Sandusky, Ohio.....	20,127	Swissvale, Pa.....	7,381	Watervliet, N. Y.†	18,938
Princeton, N. J.†	5,678	Sanford, Me.....	10,314	Swoyersville, Pa.....	5,396	Waukegan, Ill.....	9,302
Providence, R. I.*†	247,660	San Francisco, Cal.....	448,502	Syracuse, N. Y.†	145,237	Waukesha, Wis.....	18,352
Provo, Utah.....	10,019	San Jose, Cal.....	37,068	Tacoma, Wash.....	103,418	Wausau, Wis.....	6,205
Pueblo, Colo.....	51,218	San Luis Obispo, Cal.....	5,157	Tallahassee, Fla.*	5,018	Waycross, Ga.....	18,134
Punxsutawney, Pa.....	10,043	San Rafael, Cal.....	5,934	Tamaqua, Pa.....	10,386	Waynesboro, Pa.....	7,079
Putnam, Conn.....	6,637	Santa Ana, Cal.....	9,919	Tampa, Fla.....	49,136	Weatherford, Tex.....	5,194
Quincy, Ill.....	36,730	Santa Barbara, Cal.....	13,818	Tarentum, Pa.....	7,414	Webb City, Mo.....	13,299
Quincy, Mass.†	40,674	Santa Cruz, Cal.....	13,482	Tarrytown, N. Y.†	5,753	Webster, Mass.†	12,565
Racine, Wis.....	44,528	Santa Fe, N. M.*	5,072	Taunton, Mass.†	36,161	Webster City, Iowa.†	5,834
Rahway, N. J.†	9,586	Santa Monica, Cal.....	7,847	Taylor, Pa.....	11,105	Webster Groves, Mo.....	7,080
Raleigh, N. C.*	19,833	Santa Rosa, Cal.....	7,817	Taylor, Tex.....	5,314	Weehawken, N. J.†	13,488
Rankin Station, Pa.....	6,042	Sapulpa, Okla.....	11,431	Taylorville, Ill.....	5,446	Wellesley, Mass.†	6,439
Ravenna, Ohio.....	5,310	Saratoga Sprs., N. Y.†	12,864	Temple, Tex.....	12,704	Wellington, Kan.†	5,642
Reading, Mass.■	6,805	Saugus, Mass.†	10,226	Terre Haute, Ind.....	63,529	Wellston, Mo.....	7,312
Reading, Pa.....	103,381	Sault Ste. Marie, Mich	13,449	Terrell, Tex.....	7,050	Wellston, Ohio.....	6,875
Red Bank, N. J.†	8,631	Savannah, Ga.....	67,917	Tewsbury, Mass.†	5,265	Wellsville, Ohio.....	7,769
Redlands, Cal.....	12,856	Sayre, Pa.....	6,426	Texarkana, Ark.....	5,653	West Allis, Wis.....	6,645
Red Oak, Iowa.†	5,601	Schenectady, N. Y.†	80,381	Texarkana, Tex.....	11,722	Westbrook, Mass.†	5,925
Red Wing, Minn.....	9,696	Scottdale, Pa.....	5,456	Thomasville, Ga.....	6,727	Westbrook, Me.....	8,708
Reno, Nev.....	13,579	Scranton, Pa.....	411,351	Thompsonville, Conn.....	6,000	West Chester, Pa.....	12,722
Rensselaer, N. Y.†	11,210	Seattle, Wash.....	313,029	Three Rivers, Mich.....	5,072	Westerly, R. I.†	10,175
Revere, Mass.†	25,178	Sedalia, Mo.....	18,925	Throop, Pa.....	5,133	Westfield, Mass.†	18,411
Rhineland, Wis.....	5,637	Selma, Ala.....	14,868	Tiffin, Ohio.....	12,278	Westfield, N. J.†	8,147
Richmond, Cal.....	6,802	Seneca Falls, N. Y.†	7,018	Titusville, Pa.....	8,533	West Hoboken, N. J.†	38,776
Richmond, Ind.....	23,932	Seymour, Ind.....	6,305	Toledo, Ohio.....	184,126	West Newton, Mass.....	6,005
Richmond, Ky.....	5,340	Shamokin, Pa.....	10,841	Tonawanda, N. Y.†	8,290	West New York, N. J.†	22,943
Richmond, Va.*	134,917	Sharon, Pa.....	17,538	Topeka, Kan.†	46,747	West Orange, N. J.†	13,610
Ridgewood, N. J.†	6,729	Sharpsburg, Pa.....	6,710	Torrington, Conn.....	18,709	West Pittston, Pa.....	6,848
Ridgway, Pa.....	5,408	Shawnee, Okla.....	16,312	Traverse City, Mich.....	13,268	West Springfield, Mass.†	11,339
Riverside, Cal.....	18,287	Shelby, Wis.....	27,863	Trenton, Mo.....	5,656	West Tampa, Fla.....	10,772
Roanoke, Va.....	40,574	Shelbyville, Ind.....	10,493	Trenton, N. J.*†	103,190	Weymouth, Mass.†	13,969
Rochester, Minn.....	7,844	Shenandoah, Iowa.†	5,637	Trinidad, Colo.....	12,274	Wheeling, W. Va.....	42,817
Rochester, N. H.....	9,037	Shenandoah, Pa.....	28,087	Troy, N. Y.†	73,302	White Plains, N. Y.†	19,287
Rochester, N. Y.†	248,465	Sheridan, Wyo.†	8,906	Troy, Ohio.....	6,122	Whiting, Ind.....	6,587
Rochester, Pa.....	5,903	Sherman, Tex.....	13,157	Tucson, Ariz.....	15,604	Whitman, Mass.†	7,520
Rockford, Ill.....	52,337	Silverport, La.....	32,905	Tulsa, Okla.....	27,634	Wichita, Kan.†	53,582
Rockhill, S. C.....	7,216	Sidney, Ohio.....	6,607	Turners Falls, Mass.....	5,200	Wichita Falls, Tex.....	10,760
Rock Island, Ill.....	26,945	Sioux City, Iowa.†	61,774	Tuscaloosa, Ala.....	9,817	Wilkes Barre, Pa.....	73,680
Rockland, Me.....	8,174	Sioux Falls, S. Dak.†	20,920	Twin Falls, Idaho.....	5,258	Wilksport, Pa.....	21,701
Rockland, Mass.†	7,074	Skowhegan, Me.....	5,200	Tyler, Tex.....	11,393	Williamsport, Pa.....	33,181
Rock Springs, Wyo.†	5,699	Solvay, N. Y.†	5,886	Tyrone, Pa.....	7,176	Williamson, Conn.....	12,208
Rockville, Conn.....	7,977	Somersworth, N. H.....	6,704	Union, N. J.†	21,739	Wilmerding, Pa.....	6,133
Rocky Mount, N. C.....	10,855	Somerville, Mass.†	86,854	Union, S. C.....	5,623	Wilmington, Del.....	82,057
Rome, Ga.....	14,148	Somerville, N. J.†	6,038	Upland, Pa.....	19,140	Wilmington, N. C.....	27,781
Rome, N. Y.†	21,426	South Amboy, N. J.†	7,482	Urbana, Ill.....	9,375	Wilson, N. C.....	6,717
Roosevelt, N. J.†	8,049	South Bend, Ind.....	65,114	Urbana, Ohio.....	7,739	Windber, Pa.....	8,013
Rosedale, Kan.†	7,498	South Bethlehem, Pa.....	22,840	Utica, N. Y.†	80,589	Winchendon, Mass.†	5,908
Roswell, N. M.....	6,172	Southbridge, Mass.■	14,217	Valdosta, Ga.....	7,656	Winchester, Ky.....	7,156
Rumford Falls, Me.....	5,427	South Hadley, Mass.■	5,170	Vallejo, Cal.....	12,777	Winchester, Mass.†	10,005
Rutherford, N. J.†	8,347	South Milwaukee, Wis.....	6,092	Valley City, N. Dak.†	4,783	Winchester, Va.....	5,864
Rutland, Vt.....	14,417	South Norwalk, Conn.....	9,988	Vancouver, Wash.....	11,930	Winfield, Kan.†	6,138
Rye, N. Y.†	5,339	South Omaha, Neb.....	26,368	Van Wert, Ohio.....	7,157	Winona, Minn.....	18,583
Saco, Me.....	6,583	South Orange, N. J.†	5,866	Vicksburg, Miss.....	22,099	Winsted, Conn.....	7,754
Sacramento, Cal.*	82,717	South Portland, Me.....	7,471	Vincennes, Ind.....	16,759	Winston Salem, N. C.....	29,034
Saginaw, Mich.....	53,983	South River, N. J.†	6,691	Vineland, N. J.†	6,531	Winthrop, Mass.†	12,758
St. Albans, Vt.....	6,381	Spartanburg, S. C.....	20,125	Virginia, Minn.....	13,671	Winton, Pa.....	5,280
Saint Augustine, Fla.....	5,349	Spencer, Mass.†	5,994	Wabash, Ind.....	8,718	Woburn, Mass.†	16,410
Saint Bernard, Ohio.....	5,002	Spokane, Wash.....	135,657	Waco, Tex.....	28,707	Woodbury, N. J.†	5,288
Saint Charles, Mo.....	10,058	Springfield, Ill.*	87,972	Wakefield, Mass.†	12,781	Woonsocet, R. I.†	40,075
St. Clair, Pa. (Allegheny Co.).....	5,640	Springfield, Mass.†	102,971	Walla Walla, Wash.....	23,275	Wooster, Ohio.....	6,136
St. Clair, Pa. (Schuylkill Co.).....	6,455	Springfield, Mo.....	38,695	Wallington, Conn.....	12,072	Worcester, Mass.†	162,697
St. Cloud, Minn.....	11,425	Springfield, Ohio.....	50,058	Walepole, Mass.■	5,478	Wyandotte, Mich.....	9,183
St. Johnsburg, Vt.....	8,561	Spring Valley, Ill.....	7,035	Waltham, Mass.†	30,154	Xenia, Ohio.....	3,706
St. Joseph, Mich.....	5,936	Stamford, Conn.....	29,932	Wapakoneta, Ohio.....	5,349	Yazoo City, Miss.....	6,799
St. Joseph, Mo.....	82,712	Stanton, Ill.....	5,048	Ware, Mass.†	9,346	Yonkers, N. Y.†	90,886
St. Louis, Mo.....	734,667	Stanton, Va.....	11,318	Wareham, Mass.†	5,176	York, Neb.....	6,235
St. Marys, Ohio.....	5,732	Steelman, Pa.....	15,126	Warren, Ohio.....	12,074	York, Pa.....	49,430
St. Marys, Pa.....	6,346	Sterling, Ill.....	7,467	Warren, Pa.....	14,045	Youngstown, Ohio.....	93,341
St. Paul, Minn.*	236,768	Steubenville, Ohio.....	25,817	Warren, R. I.†	7,241	Ypsilanti, Mich.....	6,230
Salamanca, N. Y.†	8,370	Stevens Point, Wis.....	8,692	Warwick, R. I.†	13,302	Zanesville, Ohio.....	29,949
Salem, Mass.†	37,200	Stillwater, Minn.....	10,198	WASHINGTON, D. C.....	353,378		
Salem, N. J.†	6,953	Stockton, Cal.....	25,702	Washington, Ind.....	7,854		
		Stoneham, Mass.†	7,489				

DISTANCES BETWEEN THE LARGER CITIES OF THE UNITED STATES

The distances are by the shortest usually traveled railroad routes. Compiled from the War Department's official table of distances.

From	New York	Chicago	Philadelphia	St. Louis	Boston	Baltimore	Cleveland	Buffalo	San Francisco	Pittsburg	Cincinnati	Milwaukee	New Orleans	Washington	Minneapolis
To	Mls.	Mls.	Mls.	Mls.	Mls.	Mls.	Mls.	Mls.	Mls.	Mls.	Mls.	Mls.	Mls.	Mls.	Mls.
Albany	145	832	236	1,028	202	333	430	297	3,106	567	724	917	1,517	1,142	1,252
Atlanta	876	733	785	611	1,106	688	736	919	2,805	805	492	818	496	648	1,153
Baltimore	188	802	97	934	418	.....	474	398	3,076	334	593	887	1,184	40	1,222
Boston	217	1,034	321	1,230	.....	418	682	499	3,308	674	926	1,119	1,602	458	1,454
Buffalo	442	525	416	731	499	398	183	.....	2,799	270	427	610	1,256	438	945
Chicago	912	.....	821	284	1,034	802	357	525	2,274	468	298	85	912	790	420
Cincinnati	757	298	666	341	926	593	244	427	2,572	313	.....	383	829	553	718
Cleveland	584	357	493	548	682	474	.....	183	2,631	135	244	442	1,073	437	777
Columbus, O.	637	314	546	428	820	511	138	321	2,588	193	116	399	935	471	734
Denver	1,934	1,022	1,843	916	2,056	1,550	1,379	1,537	1,371	1,490	1,257	1,107	1,347	1,810	884
Detroit	693	272	669	488	750	649	173	251	2,546	321	263	357	1,092	655	692
Duluth	1,391	479	1,300	728	1,513	1,281	701	1,004	2,238	947	777	422	1,447	1,269	162
El Paso	2,310	1,465	2,219	1,245	2,414	2,179	1,703	1,915	1,287	1,866	1,586	1,550	1,195	2,139	1,521
Galveston	1,792	1,144	1,691	860	2,012	1,594	1,408	1,591	2,157	1,481	1,157	1,229	410	1,554	1,340
Grand Rapids, Mich.	821	178	815	462	878	796	332	379	2,452	462	308	263	1,090	764	598
Helena	2,452	1,540	2,361	1,549	2,574	2,342	1,897	2,065	1,250	2,008	1,838	1,455	2,152	2,320	1,119
Indianapolis	825	183	734	240	965	704	283	466	2,457	381	111	268	888	664	603
Jacksonville, Fla.	983	1,097	892	975	1,213	795	1,085	1,193	3,098	1,057	841	1,182	616	755	1,517
Kansas City	1,342	458	1,251	277	1,466	1,211	755	967	1,981	898	618	543	880	1,171	573
Los Angeles	3,149	2,265	3,058	2,084	3,273	3,018	2,562	2,774	475	2,705	2,425	2,530	2,007	2,978	2,301
Louisville	871	304	780	274	1,040	703	358	541	2,468	427	114	389	778	663	727
Memphis	1,157	527	1,066	311	1,387	969	738	921	2,439	807	494	612	396	929	894
Milwaukee	997	85	906	369	1,119	887	442	610	2,359	553	383	.....	997	875	335
Minneapolis	1,332	420	1,241	586	1,454	1,222	777	945	2,096	888	718	335	1,285	1,210	.....
Mobile	1,231	929	1,140	647	1,461	1,043	1,029	1,212	2,623	1,098	785	1,014	141	1,003	1,233
Montreal	386	841	477	1,051	330	574	623	434	3,115	704	826	926	1,655	614	1,125
Newark, N. J.	9	903	82	1,056	226	179	575	405	3,177	435	748	988	1,363	219	1,323
New Haven	76	980	167	1,141	140	264	628	445	3,254	520	833	1,065	1,468	304	1,400
New Orleans	1,372	912	1,281	699	1,602	1,184	1,073	1,256	2,482	1,142	829	997	.....	1,144	1,286
New York	.....	912	91	1,065	217	188	584	442	3,186	444	757	997	1,372	228	1,332
Ogden	2,496	1,494	2,315	1,414	2,528	2,296	1,851	2,019	780	1,962	1,792	1,579	1,891	2,284	1,316
Omaha	1,405	493	1,314	413	1,527	1,295	1,750	1,018	1,781	961	791	578	1,080	1,283	381
Philadelphia	91	821	.....	974	321	97	493	416	3,095	353	666	906	1,281	137	1,241
Pittsburg	444	468	353	621	674	334	135	270	2,742	.....	813	553	1,142	302	888
Portland, Me.	332	1,149	436	1,345	115	533	797	614	3,423	789	1,041	1,234	1,717	573	1,569
Portland, Ore.	3,204	2,292	3,113	2,212	3,328	3,094	2,649	2,817	772	2,780	2,590	2,378	2,746	3,082	2,042
Providence	190	1,034	281	1,230	45	378	682	499	3,308	634	926	1,119	1,562	418	1,454
Quebec	530	1,013	621	1,343	402	718	795	612	3,287	876	1,039	1,098	1,827	786	1,433
Richmond, Va.	343	879	252	918	573	155	553	553	3,153	417	581	964	1,046	115	1,299
Rochester, N. Y.	373	603	361	799	430	354	251	68	2,877	338	495	658	1,324	394	1,023
St. Joseph, Mo.	1,392	470	1,301	327	1,474	1,261	875	1,058	1,867	945	668	559	941	1,221	485
St. Louis	1,065	284	974	.....	1,230	934	548	731	2,194	621	341	369	699	894	586
St. Paul	1,322	410	1,231	576	1,444	1,212	767	935	2,086	878	708	325	1,275	571	1,715
San Antonio	1,943	1,204	1,852	920	2,150	1,755	1,468	1,651	1,911	1,541	1,217	1,289	3,064	2,026	.....
San Francisco	3,186	2,274	3,095	2,194	3,308	3,076	2,631	2,799	.....	2,742	2,572	2,359	2,482	3,064	2,026
Seattle	3,151	2,239	3,060	2,332	2,733	2,941	2,596	2,764	.....	957	2,707	2,537	2,154	2,931	3,020
Spokane	2,812	1,900	2,721	1,932	2,934	2,702	2,257	2,425	1,205	2,368	2,198	1,815	2,535	2,690	1,479
Springfield, Mass.	139	935	230	1,131	99	327	583	400	3,209	583	827	1,020	1,511	987	1,355
Tampa, Fla.	1,195	1,309	1,104	1,187	1,425	1,007	1,297	1,405	3,310	1,269	1,053	1,394	828	987	1,729
Toledo	705	244	615	437	795	595	113	296	2,518	261	203	329	1,032	595	664
Washington	228	790	137	894	458	40	437	438	3,064	302	553	875	1,144	.....	1,210

FINGER PRINTS

Twenty years have elapsed since the discovery of "finger prints" by Francis Galton. The average man does not realize that this mode of identification is absolutely unassailable, never having failed when fairly tried. Like ridges have never been found on the fingers of any two persons. To-day it is utilized in many odd but useful ways. Unlettered persons no longer need to sign documents with the mark of the cross; a finger print is far more positive and absolutely proof against forgery. Banks are already confirming signatures and corporations are beginning to identify employees in this way. Finger prints are taken as signatures to receipts for payment to the workmen constructing the Panama Canal.

Lieutenant Faurot of the New York Police Department has suggested also that "birth certificates be accompanied by the baby's and mother's finger prints," and it has been mooted even that all individuals establish a record of their identity by depositing their finger prints in the police or some other legally designated office, to be duplicated in a central office at the national capitol. Since the finger prints are reliable until decomposition has obliterated them, their value in establishing lost identity is obvious. Many suits for fraudulent insurance claims would be prevented if the insured were compelled to add a finger print to the usual signature, furnishing mute but unerring evidence.

NON-CONTIGUOUS TERRITORY OF THE UNITED STATES

THE PHILIPPINE ISLANDS

There are 3,139 charted islands composing the Philippine group of which 1473 are yet without a name. These islands came into the possession of the United States as a result of the war with Spain settled by the Treaty of Paris, December 10, 1898. The formal date of acquisition was April 11, 1899.

The area of the Philippines is 115,026 square miles, approximately equal to that of the New England States plus New York and New Jersey. The largest islands and their areas in square miles are Luzon, 40,969; Mindanao, 36,292; Samar, 5,031; Panay, 4,611; Mindoro, 3,851; and Negros, 4,881.

The census of 1911 gives the population of the Philippines as 8,460,579, a density of 71.96 to the square mile.

The Philippines are governed by civil officers, the principal ones being appointed by the President of the United States. The Assembly is selected by vote of the various provinces.

In 1912, President Taft sent a special message to Congress reporting that the Philippines were self supporting, but the fact depends upon whether the support of the army in the Philippines, which costs about \$12,000,000 annually, should be charged against the expense of the Islands or not.

HAWAII

The Hawaiian Islands in the mid-Pacific are about 2,000 miles west of San Francisco. They were annexed to the United States by a resolution of Congress approved July 7, 1898, and organized as a territory, June 14, 1900.

There are eight principal islands, their area in square miles being as follows: Hawaii, 4,210; Maui, 760; Oahu, 600; Kauai, 590; Molokai, 270; Lanai, 150; Niihau, 97; Kahoolawe, 63. The total area is 6,740 square miles.

The census of 1912 gives the total population as 200,065, Honolulu City containing about one-fourth. There are over 80,000 Japanese.

The government of the Hawaiian Islands is carried on by a Senate and House of Representatives locally elected and a governor appointed by the President of the United States.

In 12 years of territorial government these Islands increased in imports and exports 125 per cent. About 90 % of the trade is done with the mainland of the United States.

ALASKA

Alaska was acquired from Russia on June 20, 1867 by the payment of \$7,200,000. Civil government was established May 17, 1884. The area of this territory is 590,884 square miles. The population, as given in 1912, is 64,520 about equally divided between whites and natives.

The Alaskan Engineering Commission was created under Act of March 12, 1914, which empowered the President to construct or lease a railroad or railroads to connect the interior of Alaska with one or more of the open navigable ports, thus providing for the development of agricultural, mining and other interests, and opening up the country for settlement. Authority was also granted to purchase existing railroads, to construct and operate telegraph and telephone lines, and make reservations of public lands in Alaska necessary for the purposes of the railroad. For the execution of the work a commission of three engineers was appointed by the President to make the required surveys. They are to report to the Secretary of the Interior, under whom the president has placed the general administration of the work.

Alaska's greatest resources are her minerals, and in the development of these the precious metals still hold the predominant place. The shipments of domestic gold to the States during 1914, amounted to \$15,201,300, but slightly less than the importation of merchandise into Alaska from the States. The statistics of commerce have shown an increase in the value of the shipments other than gold and silver from Alaska to the States. Canned salmon and copper ore were the items which increased most. The coal used in Alaska for all purposes during the year was over 116,000 tons. The inadequate laws, the pending contests on private entries, and the general withdrawal of the coal lands have combined to prevent the development of Alaskan coal. The fishing industry stands second in its productiveness.

PORTO RICO

Porto Rico is 1,050 miles southeast of Key West, Florida. The Island was formally acquired by the United States, April 11, 1899. Its area is 3,435 square miles and its population as given in 1911 is 1,151,579, a density of nearly 340 to the sq. mile.

The governor is appointed by the President of the United States. The legislative department is made up of an Executive Council composed of eleven members, five of whom are native Porto Ricans, all appointed by the President, and a House of

Delegates elected by the people. Porto Rico is principally known for its sugar, coffee and tobacco production, its sugar crop amounting to nearly \$27,000,000 in 1913.

GUAM

The Island of Guam is located east of the Philippines, 5,200 miles from San Francisco. It was acquired April 11, 1899. Its area is 210 square miles and its population, as estimated in 1911, is 12,240. The island is used by the United States as a naval base. Guam is very fertile, its principal products being tropical fruits, rice, corn and sugar.

TUTUILA GROUP, SAMOA

This group of islands was acquired March 8, 1900; area 77 square miles and population (1912) 7,251. The islands are unimportant at present but Tutuila has one of the finest harbors in that part of the world.

PANAMA CANAL ZONE

The Panama Canal Zone is a strip of land 10 miles wide stretching across the Isthmus of Panama. This strip was acquired by the United States February 26, 1904. Its area is 448 square miles with a population, as estimated by the Isthmian Canal Commission, of 62,810.

Territorial Delegates at Washington

ALASKA - - - - James Wickersham, D., Fairbanks
HAWAII - - - - J. Kubio Kalaniana'ole, R., Honolulu
PHILIPPINES - - - - Manuel L. Quezon, D., Tayabas
RESIDENT COMMISSIONERS - Manuel Earnshaw, D., Manila
PORTO RICO - - - - Luis Muñoz Rivera, D., San Juan
RESIDENT COMMISSIONER

PERIODICALS IN THE UNITED STATES (From Ayer's American Newspaper Annual)

States	Daily	Weekly	Total all issues
Alabama	26	184	242
Arkansas	34	262	324
California	167	574	932
Colorado	44	213	401
Connecticut	38	91	156
Delaware	3	26	35
Florida	26	155	202
Georgia	26	258	358
Idaho	12	143	169
Illinois	171	1,062	1,826
Indiana	146	518	762
Iowa	65	756	944
Kansas	69	625	735
Kentucky	29	213	309
Louisiana	19	163	222
Maine	14	96	139
Maryland	17	112	171
Massachusetts	90	389	672
Michigan	78	521	720
Minnesota	47	634	763
Mississippi	17	187	233
Missouri	84	752	986
Montana	21	218	253
Nebraska	29	556	640
Nevada	11	27	41
New Hampshire	13	86	110
New Jersey	46	287	379
New York	211	1,117	2,115
No. Carolina	27	196	300
No. Dakota	10	343	362
Ohio	174	680	1,115
Oregon	34	218	299
Oklahoma	50	511	596
Pennsylvania	218	809	1,358
Rhode Island	14	25	55
So. Carolina	16	111	168
So. Dakota	19	371	412
Tennessee	16	111	168
Texas	109	857	1,081
Utah	6	84	115
Vermont	9	78	98
Virginia	30	171	255
Washington	37	321	414
West Virginia	32	166	217
Wisconsin	66	535	685
Wyoming	6	73	89

FARM CROPS IN THE UNITED STATES

NUMBER AND ACREAGE OF FARMS

	Census year	Number of farms	Number of Acres in Farms				Per cent of farm land im-proved	Total Value all Farm Property
			Improved	Unimproved	Total	Average number of acres to a farm		
Total Continental U. S. . .	1890	4,564,641	357,616,755	265,601,864	623,218,619	136.5	57.4	*16,082,267,689
	1900	5,737,372	414,498,487	424,093,287	838,591,774	146.2	49.4	20,439,901,164
	1910	6,361,502	478,451,750	400,346,575	878,798,325	138.1	54.4	40,991,449,090
<i>Geographic Divisions</i>								
New England	1890	189,961	10,738,930	9,016,654	19,755,584	104.0	54.4	585,267,817
	1900	191,888	8,134,403	12,414,596	20,548,999	107.1	39.6	639,645,900
	1910	188,802	7,254,904	12,460,027	19,714,931	104.4	36.8	867,240,457
Middle Atlantic	1890	468,608	31,599,094	11,388,847	42,987,941	91.7	73.5	2,384,703,476
	1900	485,618	30,786,211	14,073,879	44,860,090	92.4	68.6	2,310,886,728
	1910	468,379	29,320,894	13,870,162	43,191,056	92.2	67.9	2,959,589,022
East North Central	1890	1,009,031	78,774,647	27,012,178	105,786,825	104.8	74.5	4,751,184,987
	1900	1,135,823	86,670,271	29,670,490	116,340,761	102.4	74.5	5,683,925,367
	1910	1,123,489	88,947,228	28,981,920	117,929,148	105.0	75.4	10,119,128,066
West North Central	1890	914,791	105,517,479	45,282,690	150,800,169	164.8	70.0	3,766,511,744
	1900	1,060,744	135,643,828	65,364,885	201,008,713	189.5	67.5	5,820,994,481
	1910	1,109,948	164,284,862	68,363,259	232,648,121	209.6	70.6	13,535,309,511
South Atlantic	1890	749,600	41,677,371	58,480,202	100,157,573	133.6	41.6	1,333,395,489
	1900	962,225	46,100,226	58,197,280	104,297,506	108.4	44.2	1,454,031,316
	1910	1,111,881	48,479,733	55,302,522	103,782,255	93.3	46.7	2,951,200,773
East South Central	1890	655,766	35,729,170	43,270,189	78,999,359	120.5	45.2	1,054,730,138
	1900	903,313	40,237,337	41,010,306	81,247,643	89.9	49.5	1,195,868,790
	1910	1,042,480	43,946,846	37,573,783	81,520,629	78.2	53.9	2,182,771,779
West South Central	1890	431,006	30,559,654	46,889,281	77,448,935	179.7	39.5	835,791,560
	1900	754,853	39,770,530	136,720,672	176,491,202	233.8	22.5	1,619,954,613
	1910	943,186	58,264,273	110,885,703	169,149,976	179.3	34.4	3,838,154,337
Mountain	1890	49,398	5,460,739	9,305,123	14,765,862	298.9	37.0	349,550,941
	1900	101,327	8,402,576	37,994,708	46,397,284	457.9	18.1	601,264,180
	1910	183,446	15,915,002	43,618,418	59,533,420	324.5	26.7	1,757,573,368
Pacific	1890	96,480	17,559,671	14,956,700	32,516,371	337.0	54.0	1,021,131,537
	1900	141,581	18,753,105	28,646,471	47,399,576	334.8	39.6	1,113,329,789
	1910	189,891	22,038,008	29,290,781	51,328,789	270.3	42.9	2,780,481,777
Alaska	1900	12	159	.....	159	13.2	100.0	15,686
	1910	222	2,659	39,885	42,544	191.6	6.3	1,060,510
Hawaii	1900	2,273	294,545	2,315,068	2,609,613	1,148.1	11.3	74,084,988
	1910	4,320	305,053	2,285,547	2,590,600	599.7	11.8	96,363,229
Porto Rico	1910	58,371	1,570,304	514,858	2,085,162	35.7	75.3	102,377,801

* Includes estimated value of range animals.

ACREAGE OF THE VARIOUS CROPS

The aggregate acreage harvested of the general farm crops as reported in the census years 1909, 1899, 1889, and 1879 is given in the following statement:

The acreage of hay and forage, tobacco and cotton has more than doubled in thirty years while that of the combined cereals has increased somewhat less than two-thirds.

Crop	Acreage Harvested			
	1914	1909	1899	1889
Cereals	207,009,530*	191,395,963	184,982,220	140,378,857
Hay and Forage	49,145,000**	72,280,776	61,691,069	52,948,797
Tobacco	1,223,500	1,294,911	1,101,460	695,301
Cotton	36,722,000	32,043,838	24,275,101	20,175,270
Potatoes	3,708,000	3,668,855	2,938,778	2,600,750
Sweet Potatoes	603,000	641,255	537,312	524,588

* Does not include Emmer and Spelt and Kaffir Corn.
(Figures for the above are not available for 1914)

** Does not include Forage

WEALTH OF FARM PRODUCTION

The world's history does not record any such production of farm crops in one country as that grown by the United States in the past four years. Since 1899 the value of farm crops has more than doubled. Most productive of all agricultural years was 1914. Following is the wealth of farm production as given by the Department of Agriculture:

Calendar Year	Wealth Production	Calendar Year	Wealth Production
1901.....	\$5,302,000,000	1908.....	\$7,778,000,000
1902.....	5,594,000,000	1909.....	8,760,000,000
1903.....	5,887,000,000	1910.....	8,694,000,000
1904.....	6,121,778,000	1911.....	8,417,000,000
1905.....	6,273,997,000	1912.....	9,532,000,000
1906.....	6,764,210,000	1913.....	9,790,000,000
1907.....	7,488,000,000	1914.....	9,873,000,000

GENERAL FARM CROPS BY SECTIONS

1910 CENSUS REPORT

The distribution of the several crops throughout the country is shown in the following table, which gives for each crop the percentage of the total acreage which is reported from each of the nine geographic divisions. To make the significance of the table somewhat clearer, figures are also given for larger sections of the country, termed, respectively, the North, the South, and the West, and for the sections east and

west of the Mississippi River. The North includes the first four divisions, the South the next three, and the West the last two.

SECTION	PER CENT OF TOTAL ACREAGE				
	Cereals	Hay and forage	Potatoes	Tobacco	Cotton
United States.....	100.0	100.0	100.0	100.0	100.0
New England.....	0.2	5.3	6.4	1.7	.....
Middle Atlantic.....	3.9	11.8	19.9	3.5	.....
E. No. Cent.....	22.1	20.4	30.1	13.3	.....
W. No. Cent.....	43.7	37.9	21.4	0.4	0.3
So. Atlantic.....	8.0	4.0	6.5	37.6	28.1
E. So. Cent.....	7.1	3.4	3.3	43.3	24.7
W. So. Cent.....	10.2	4.5	3.2	0.1	46.9
Mountain.....	1.8	6.9	4.6	(*)	(*)
Pacific.....	3.0	5.8	4.6	(*)	(*)
The North.....	70.0	75.4	77.7	18.9	0.8
The South.....	25.3	11.9	13.0	81.1	99.7
The West.....	4.8	12.7	9.3	(*)	(*)
E. of Miss.....	41.3	44.9	66.2	99.4	52.8
W. of Miss.....	58.7	55.1	33.8	0.6	47.2

*Less than one-tenth of one per cent.

THE CEREALS

In the United States as a whole a little more than one-half of the acreage devoted to cereals is in corn, a little less than one-fourth in wheat and somewhat more than one-sixth in oats.

In the Pacific states the acreage of corn is insignificant and that of barley exceeds that of oats. Corn occupies the leading place in the important cereal-producing regions, but in the New England and Middle Atlantic divisions the first place is held by oats, and in the Pacific and Mountain divisions by wheat.

In the South corn occupies over three-fourths of the total cereal acreage, but in the North the proportion is less than one-half. In both of these sections wheat is second in importance, with oats a close third. In the West, however, wheat occupies one-half the cereal acreage, and oats and barley each about one-fifth, while the acreage of corn is insignificant.

The distribution of the total acreage of each particular crop among the different geographic divisions and sections shows that for the three leading cereals, corn, oats, and wheat, the largest proportion of the acreage is found in the West North

Central division and the next largest in the East North Central division. In the acreage of barley the prominence of the West North Central division is even more clearly marked, but the Pacific division shows a larger proportion of the total than the East North Central. The center of buckwheat production is in the Middle Atlantic division, which has more than two-thirds of the total acreage. In the case of rye the East North Central division leads, followed by the Middle Atlantic and West North Central, which have almost identical proportions.

About three-fifths of the corn acreage and more than three-fourths of that of each of the other cereals mentioned in the table are in the North. The South has a much larger proportion of the acreage of corn than that of the other cereals, while the West has nearly one-fourth of the acreage of barley.

The following table gives the acreage of the cereal group as a whole and of the several cereal crops, as reported at each census from 1879 to 1909:

Crop	Acreage in the United States			
	1914	1909	1899	1889
All Cereals.....	207,009,000*	191,395,963	184,982,220	140,378,857
Corn.....	103,435,000	98,382,665	94,913,673	72,087,752
Oats.....	38,442,000	35,159,441	29,539,698	28,320,677
Wheats.....	53,541,000	44,262,592	52,588,574	33,579,514
Barley.....	7,565,000	7,698,706	4,470,196	3,220,834
Buckwheat.....	792,000	878,048	807,060	837,164
Rye.....	2,541,000	2,195,561	2,054,292	2,171,604
Rough Rice.....	693,530	610,175	342,214	161,312
Emmer and Spelt.....		573,622	(*)	(*)
Kaffir Corn.....		1,635,153	266,513	(*)

*Does not include Emmer and Spelt and Kaffir Corn.

Figures for these crops for the year 1914 are not available.

All of the cereals except wheat and rice produced their largest crops in 1912. The gain is 25.6 above the five year average. The total production of the seven cereals amounted to 5,609,807,000 bushels. The largest total of any preceding year was 4,958,559,000 in 1910.

The acreage of the cereals increased rapidly during the 20 years preceding 1899, being in that year nearly 45,000,000 greater than in 1889 and 66,000,000 greater than in 1879. In the last decade, however, the increase in the acreage of the cereal crops amounted to but little more than 6,000,000. Corn and wheat made their greatest gains in the decade ending with

1899, and since that time the increase in the acreage of corn has been relatively small, while that of wheat has fallen off more than 8,000,000 acres. After an increase of over 12,000,000 in the acreage of oats between 1879 and 1889 this crop made a comparatively slight increase in the following 10 years, but in the decade ending with 1909 gained nearly 6,000,000 acres. Of the minor cereals, barley and rice show substantial increases in each decade, while the acreage of rye increased about one-sixth between 1879 and 1889, but shows comparatively little change during the next 20 years, and the acreage of buckwheat has remained practically stationary during the 30 years covered by the table.

ROTATION OF CROPS

Farmers adopt rotations because they desire (1) to get larger yields and profits per acre; (2) to distribute their work more equitably throughout the season; (3) to be more certain of an annual income than is possible where a single crop is grown; (4) to maintain the productiveness of the farm; and (5) to minimize the injury from weeds, insect pests, and diseases that generally accompany a system of one-crop farming. A systematic rotation whereby different crops follow one another from year to year on each field of the farm in orderly succession makes possible a more careful planning of the year's work.

In planning a rotation it is necessary to keep in mind the income it will bring, the needs of the land, the requirements of the stock kept on the place, the effects of each crop on the yields of the succeeding crops, and the profitable distribution of labor. There are three main classes of crops to deal with in planning a rotation: (1) Small grain crops, (2) hay crops, and (3) cultivated crops. Long experience has taught that as a general proposition permanently productive and profitable farming requires that these three classes of crops be systematically rotated with each other. This proposition holds true for the corn belt.

In the rotations discussed, corn is the cultivated and cleaning crop of the rotation, but the area of corn land that can be cultivated efficiently with the usual farm force is limited. This makes desirable the planting of some other crop, such as wheat or oats, which can be put in before corn is planted and requires no cultivation. When the corn is laid by, the harvesting of the grain can begin.

Both the corn and the small grain reduce the productiveness of the land; therefore to offset this a soil-enriching or leguminous crop, such as clover, cowpeas, vetch, soy beans, or alfalfa, should be grown.

By a leguminous crop is meant one that has the capacity, due to bacterial organisms in the soil, of collecting nitrogen from the air and storing it in small nodules on the roots of the plant. Nitrogen is one of the most expensive elements required for plant growth, and under a properly managed rotation of crops including the growing of legumes, it may be supplied at a cost of two and a half to three, not over five cents a pound, while if purchased on the market it would mean an outlay of at least 20 cents a pound.

The following table gives the relative percentages of nitrogen contained in the roots and tops of these different leguminous crops:

Crop	Lbs. of nitrogen in tops per acre	Per cent. of nitrogen in the roots
Cowpeas.....	65.2	6 %
Soy beans.....	130.9	6½ %
Vetch.....	108.	11 %
Crimson clover.....	128.2	6 %
Alfalfa.....	54.8	42 %
Red clover.....	69.8	32 %

The crops to be grown in a rotation depend mainly on the following things: (1) The length of the season; (2) the character and condition of the soil; (3) the amount of rainfall.

The principal legume in the greater part of the corn belt is red clover. In Kansas and Nebraska it is alfalfa. When clover winterkills, in order to meet the immediate situation in the southern half of the corn belt, the field should be disked or plowed and planted to cowpeas or soy beans. If too far north for these, a mixture of Canada field peas and oats for hay or grain in the proportion of one bushel of peas to one of oats may be planted. If red clover seeded in the spring fails to show a stand at harvest time, the stubble should be thoroughly disked, reseeded to clover and harrowing it in. This should be done by the middle of August or before the first of September if possible. The chances are that the clover will make a fair growth that fall and live through the winter. On all of the poorer corn lands cowpeas and soy beans should be used at the last cultivation of the corn crop as a green manure and for pasture where stock are kept. In the more northern sections, especially on sandy lands, hairy vetch should be sown.

The use of alfalfa on the richer and better drained lands of the corn belt is highly desirable, and to that end it is suggested that from two to three pounds of seed per acre be mixed each year with the clover and timothy sown until all of the fields of the farm become inoculated and this legume forms a large part, if not all, of the hay grown. It not only increases the hay yield, but corn also yields more after alfalfa than after clover.

But even after the most careful rotation the land gradually loses in productiveness unless replenished by fertilizers. Stable manure will replace a large part of the nitrogen absorbed by the crops. Phosphorus and potassium are also necessary. The phosphorus may be replenished by the use of steamed bone meal at the rate of about 200 pounds to a ton. Kainite will supply the same proportion of potassium.

MIGRATION OF WEEDS AND PLANTS

Most of the weeds and plants growing by the roadside came from foreign lands. The United States Agricultural Department at Washington gives a list of 200 weeds. Of this number 180 are of foreign parentage. Our governmental authorities assert that the 180 foreign weeds scattered over the North American continent all proceeded from the Atlantic seaboard to the West with only rare exceptions.

The jimson weed is native in Mexico, but the plant is native also in other warm climates. This weed appeared in the tobacco fields of our pioneer parents at Jamestown. It was known to the early settlers as Jamestown weed, and our word jimson is a corruption of that first name.

Our tansy, horshoe and catnip, all of which grow wild in this country, came over from Europe, and of course were unknown before the arrival of the white race.

The mullein stalk, so common as to be almost universal in this continent, came from Europe and was utterly unknown to the Indians. The mullein is a great traveller. It is found in almost every country on the globe. In the few countries where it has failed to arrive by its own peculiar methods of travel it has been carried by man, as a curiosity. Being a citizen of so many countries it has a long list of common names, such as Adam's flannel, blanket leaf, bullock's lungwort, candlewick, feltwort, hare's beard, hedge taker, ice leaf, Jacob's staff, lady's farglove and many others.

The dandelion is not a native weed. Perhaps the seeds came in the bedding or in packages of goods. The dandelion has gone to every part of the country except the South. It is a weed wherever it appears, but is useful as a salad or greens, and the root has medicinal properties.

The dock family is another kind of weed from Europe. The yellow dock is the most common and is found throughout the United States. The yellow dock is a perennial; the leaves are lance shaped, acute and wavy with crisped margins. The burdock is a coarse, unsightly biennial weed of the aster family; it was introduced from Europe. The United States Pharmacopoeia recognizes the root of the burdock as valuable in the treatment of blood and skin diseases.

Of all the weed nuisances received here from Europe among the worst is the cocklebur, known in the books as the clot bur. This pest probably came over on the back of a sheep enmeshed in the wool. The fruit of the cocklebur is about an inch long, thickly covered with stiff spines hooked at the end, well adapted to clinging to wool. The farmers used to say the frost never catches the cocklebur in the autumn; the bur knows intuitively when frost is sure to come and therefore rushes to maturity in good time. The bur will remain in the ground for years and will germinate when the environments are propitious. This weed has no value.

The poke weed, or poke berry is native here. It is one weed which America has given to Europe, where it is cultivated as an ornamental plant. The poke is certainly a very showy and beautiful plant, but the earliest use made of it by the pioneer settlers in America was to press the juice out of the ripe fruit for red ink. The root is very thick and fleshy; it is good for rheumatism when converted into a poultice, it is said.

According to the researches of F. Hoch, a German investigator, oats, barley, and rye have originated from wild forms growing along the Mediterranean; the varieties of wheat have developed from species in Persia; buckwheat is undoubtedly of Siberian or Manchurian origin; garden beans flourish in a wild state upon the slopes of the Ardes; the parentage of our cultivated cabbage, lettuce, spinach, asparagus, celery and most root crops can be traced to the Mediterranean; the Orient has undoubtedly furnished civilization with the onion, horseradish, cucumber and melon; Peru has given it the Irish and sweet potatoes, egg plant and tomato; Central Asia, the rhubarb; while our apples, quinces, pears, currants, gooseberries and California grapes are of European parentage and our strawberries have resulted from crossing the native with the Chilean species.

INSECTICIDES AND FUNGICIDES

For Chewing Insects

ARSENIC in the form of paris green, or arsenate of lead. The latter, arsenate of lead, is so much preferable to paris green that formulas for it only are given. Paris green, if used in too large a quantity, will burn plants; arsenate of lead will not, even though used in large quantities, and it remains in suspension much longer than paris green. It is also sold under various trade names. Arsenate of lead is white, and comes in paste form. It is usually used at the rate of six ounces to five gallons of water, but may be used at the rate of one pound to five gallons.

RESIN SOAP is used to make arsenical poisons stick to smooth surfaces, like cabbage, and contains five pounds pulverized resin, one pound concentrated lye, one pint fish or any other animal oil, five gallons water.

To make: Put the resin and oil and a gallon of water in an iron kettle, and heat; when the resin has dissolved, add the lye, stirring the solution; add the balance of the water and boil the whole for two hours, or until the solution, when put into cold water, will make a clear, amber-colored liquid. The solution, when boiling, should be kept up to five gallons by adding water to make up for loss by evaporation. To use: Dilute one pint of the soap with sixteen pints of water, and add three pints of milk of lime or whitewash, and one-fourth pound of paris green; or it can be diluted with bordeaux mixture.

POISONED BRAN MASH.—One ounce white arsenic, one to two ounces brown sugar, six to ten ounces bran. Mix these together, and add enough water to make a wet but not sloppy mash. This is used as a poison bait.

HELLEBORE, an internal poison for insects, but not to man. It is used in place of paris green or arsenate of lead, where there is danger of the poison remaining on the parts of plants to be eaten. Dust dry on the leaves, especially the under side, when the dew is on, or sprinkle the leaves to insure its sticking. As a solution it can be sprayed on, using one ounce to one to three gallons of water.

For Sucking Insects

KEROSENE EMULSION.—One-half pound hard soap, two gallons kerosene, one gallon water.

Shave up the soap and dissolve it in the water, which should boil. Remove from the stove and, while still boiling, add the kerosene and thoroughly churn it. The best way to do this is by means of a bucket spray pump. Churn until it becomes a soft, butter-like mass. This is a stock solution; to use, dilute with ten to twelve parts of water. For scale insects in winter, stock solution can be used without dilution.

WHALE-OIL SOAP.—As a winter spray against scale insects, use two pounds to one gallon of water. Trunk and branches can be painted by hand in summer, but this strength will injure the leaves. Only one application of this strength should be used in a season.

One pound to eight to ten gallons of water for aphids.

PYRETHRUM, OR INSECT POWDER.—Burn in the house, to kill flies, mosquitoes and cockroaches. As it deteriorates rapidly, it must be kept in a tight can. To spray, use one-fifth of an ounce (100 grains) in two gallons of hot water.

TOBACCO DUST.—Sprinkle to drive away the striped beetle. Work it in the ground about plants infested with root-lice. In case of a tree, use one and one-half to two pounds.

WATER.—Take stems and make a decoction, using one pound to two gallons of hot water. Let it stand for several hours in a tight vessel. It can be greatly improved by adding one ounce of pyrethrum. Dilute to use with three to five parts of water.

LIME-SULPHUR WASH.—This is being recommended and used by horticulturists in place of bordeaux mixture for the treatment of plant diseases, such as apple scab, as well as for the San Jose scale, for which it was first used. Commercial lime-sulphur wash ready to use, except to dilute with water, according to the directions, can be bought, and is much handier to use than home-boiled. A home-boiled concentrated solution can be made as follows: One pound lime, two and one-fourth pounds sulphur, one gallon water.

Use an iron kettle, slake the lime in a little water, and add the sulphur when the lime begins to slake. Sift the sulphur in, and be sure there are no lumps. Boil hard for over an hour, or until the sulphur is dissolved; but it must boil for forty-five minutes, at least. Add water as necessary, and, when about

finished, dilute with water, preferably hot, to make one gallon. This should have a specific gravity of 1.30.

CARBOLIC SOAP.—Two pounds of soft soap; dilute this with rain-water to consistency of paint, and add once ounce of crude carbolic acid.

Formulas for Fungicides

COPPER SULPHATE.—For use on dormant trees. Dissolve three ounces in five gallons of water.

AMMONIACAL COPPER CARBONATE.—Dissolve five ounces of copper carbonate in three pints of ammonia (26° Beaumé); dilute for use with forty-five gallons of water. The stock solution will keep indefinitely if kept in a tightly corked bottle. This will not stain the plants, as will bordeaux mixture.

POTASSIUM SULPHIDE, OR LIVER OF SULPHUR.—Dissolve one-half ounce in one gallon of water. This loses strength with age; mix it fresh.

FORMALIN.—For potato scab, one pint to fifteen gallons of water.

CORROSIVE SUBLIMATE.—Potato scab, two ounces to two gallons of water.

BORDEAUX MIXTURE.—In five gallons of water, dissolve five ounces of copper sulphate by hanging in a bag in the top of the tub, and five and one-half ounces of good stone lime, and stir thoroughly. Strain into sprayer and add, when an insecticide is wanted, as well, three to six ounces of arsenate of lead.

IRON-SULPHATE.—For use on dormant plants only. Dissolve in three quarts of hot water as much iron-sulphate as the water will hold, then add one ounce sulphuric acid.

Directions for Determining Acid Soils

Add enough water to a half-cup of soil to make the consistency of thick cake batter, and insert blue litmus paper which may be obtained from a druggist, into it, without touching the part inserted, with the hands. If, when you rinse the inserted end, after an hour or so, it is very much reddened, the soil very likely needs liming. A pinkish color indicates a great deal of acid vegetable matter; brick-red, an absence of acid vegetable matter.

Ammonia water is also used to determine the acidity of soil. Add a teaspoonful of ammonia water to a half-glass of water containing a tablespoonful of soil. If the mixture becomes brown or black after standing for some hours, acid vegetable matter is probably present.

For most plants, lime is not required if the test shows only light acidity.

Formula for Grafting Wax

Place one part (by weight) of tallow, two parts of beeswax, and four parts of resin in a kettle. After it has become completely melted, pour into a tub of cold water, and work it with the hands until it becomes the color of molasses-candy; make into balls before putting away in a cool place. This preparation may be kept for years, and is excellent for both indoor or outdoor use. The hands should be greased before working the wax.

Directions for Applying Lime

Lime may be applied after plowing, and mixed in with the harrow, or in the fall, to be followed by the spring plowing. Soils with a great deal of acid vegetable matter may require from 5,000 to 6,000 pounds, but, on sandy soils, 500 pounds to the acre may be all that is needed.

HORSE POWER OF FALLING WATER

A gallon of falling water will develop as much power as a falling block of iron weighing 62.5 pounds. Of course, the greater the fall the greater the power developed. Water falling one foot will develop a pressure of .43 pounds per square inch of pipe. The same amount of water falling 100 feet will develop a pressure of 43.31 pounds per square inch of pipe.

To compute the power of falling water it is necessary to multiply the volume of flowing water in cubic feet per minute by its weight, 62.5 pounds, and this product by the vertical height of the fall in feet, and divide by 33,000, the number of foot-pounds representing 1 h.p. for 1 minute.

BUILDING AND OTHER HINTS FOR THE FARMER

BUILDING HINTS

HOW TO ESTIMATE MASON WORK

Brick—1½ barrels lime and ¾ yard sand will lay 1,000 bricks.
One man with one tender, will lay 1,800 to 2,000 bricks per day.

Rubble—1½ barrels of lime and 1 yard of sand will lay 1,000 feet of stone.

One man will lay 150 feet of stone per day with one tender.

A good mortar for heavy stone or brick work can be made from one part of slacked lime, two parts sand and one-third part of blacksmith's ashes.

HOW TO ESTIMATE CONSTRUCTION

One thousand shingles, laid 4 inches to the weather, will cover 100 square feet of surface.

One-fifth more siding and flooring is needed than the number of square feet of surface to be covered because of the lap in the siding and matching.

One thousand laths will cover 70 yards of surface, and 11 pounds of lath nails will nail them on. Eight bushels of good lime, 16 bushels of sand, and one bushel of hair will make enough good mortar to plaster 100 square yards.

A cord of stone, 3 bushels of lime and a cubic yard of sand, will lay 100 cubic feet of wall.

Five courses of brick will lay one foot in height, on a chimney; 16 bricks in a course will make a flue 4 inches wide and 12 inches long, and eight bricks in a course will make a flue 8 inches wide and 16 inches long.

CEMENT REQUIRED FOR SURFACING

The following table gives the amount of cement and sand required in several instances. Any area can be estimated by the use of this table:

Bbls. of cement	Bbls. of sand	Thickness of coating	Area covered in sq. feet
1	1	1 inch	67
1	1	¾ "	90
1	1	½ "	134
1	2	1 "	104
1	2	¾ "	139
1	2	½ "	200
1	3	1 "	140
1	3	¾ "	187
1	3	½ "	280

HOW TO MIX CONCRETE

For ordinary work a very satisfactory concrete mixture is one part of Portland cement, two and one-half parts of clean sharp sand, five parts of broken stone. In heavy foundation work, the quantity of cement can be considerably less. The important thing is, to have the sand and cement thoroughly mixed, and to only use clean sand—that is, sand that is free from any excess of clay, soil or rubbish of any kind. Use only as much water as necessary. It is not well to work concrete in freezing weather.

CEMENT PRODUCTION

During the thirteen years 1899-1911, the production of cement in the United States has shown an annual increase, and the growth of the Portland cement industry has been enormous. This is indicated by the fact that the 2,000,000-barrel increase in production in 1911 was the smallest that has been recorded within these thirteen years. The total production of Portland cement in the United States in 1911 was 78,528,637 barrels, valued at \$66,248,817. Although the increase over the production of 1910 was 1,978,686 barrels, or 2.58 per cent, the total value decreased \$1,956,983, or 2.87 per cent.

The average price per barrel in 1911 was a little over eighty-four cents, compared with 89 cents in 1910. The Portland cement plants reported in operation numbered 115, an increase of 9 over the number in the preceding year.

TURKEYS

It is a mistake to confine turkeys in small enclosures. By nature they are roving birds and get their feed over a wide range.

Turkeys should be raised with turkey hens because the young poults with chicken mothers will not range as widely as they should.

The young turkeys should be turned out in the fields just as soon as the dew is off the grass and should be allowed to remain out until dark.

If they are driven into the poultry house about dark and given a feed of grain or dry corn meal, wet and squeezed dry, they will, in a few days, return of their own accord.

Of course they must be brought in every night because if they are allowed to roost away from the poultry house they are likely to be destroyed by animals.

If the young turkeys can be induced to roost in a large tree near the poultry house they will do very well there because the tree is the natural roosting place for turkeys. An inclined board is placed against the tree so that the poults can get into it when they are quite young. Many of them continue to walk up the plank to the first branches even after they are fully grown while the others use their wings to reach the branches.

Young turkeys cannot thrive in damp quarters. They should be well ventilated and placed where they will get plenty of sunshine.

Young turkeys should never be hurried or driven home or quickly forced into the poultry house. They are deliberate in their movements and should take half an hour or more to find their roosting places and settle down for the night.

DEFINITION OF HORSE POWER

A Standard Engine Horse Power is 33,000 foot-pounds per minute—that is, 33,000 pounds raised one foot in one minute, or 3,300 pounds raised ten feet, or 330 pounds raised one hundred feet, and so on.

To calculate the horse power of an engine, multiply together the area of the steam piston in square inches, the piston speed in feet per minute and the mean effective pressure of the steam in pounds per square inch and divide the result by 33,000. This will give the horse power in the cylinder, or indicated horse power. From this must be taken the horse power consumed by the engine in friction, etc., to obtain the net horse power.

HOW TO MIX PAINTS FOR TINTS

Red and Black makes.....	Brown
Lake and White makes.....	Rose
White and Brown makes.....	Chestnut
White, Blue and Lake makes.....	Purple
Blue and Lead Color makes.....	Pearl
White and Carmine makes.....	Pink
Indigo and Lampblack makes.....	Silver-Gray
White and Lampblack makes.....	Lead Color
Black and Venetian Red makes.....	Chocolate
White and Green makes.....	Bright Green
Purple and White makes.....	French White
Light Green and Black makes.....	Dark Green
White and Green makes.....	Pea Green
White and Emerald Green makes.....	Brilliant Green
Red and Yellow makes.....	Orange
White and Yellow makes.....	Straw Color
White, Blue and Black makes.....	Pearl Gray
White, Lake and Vermilion makes.....	Flesh Color
Umber, White and Venetian Red makes.....	Drab
White, Yellow and Venetian Red makes.....	Cream
Red, Blue, Black and Red makes.....	Olive
Yellow, White and a little Venetian Red makes.....	Buff

STREET SWEEPINGS AS FERTILIZER

The United States Department of Agriculture has been conducting elaborate experiments to ascertain the value of street sweepings as a fertilizer. The Bureau of Soils tried samples collected in various ways upon wheat, corn and radishes and found that hand sweepings were best, but not nearly so good as well-rotted stable manure; that machine sweepings were about one-third as good as hand and that decomposed sweepings were almost useless.

The reason for this was that the sweepings contained much lubricating oil. The experimenters then made tests of sweepings from which the oil had been extracted and found that both hand and machine sweepings produced as good results as stable manure, while the decomposed sweepings were not far behind.

The department issues a bulletin warning farmers and gardeners that sweepings from which the oil has not been extracted will eventually impair the productiveness of soil, unless through drainage the oily material is drained off or changed.

STRENGTH OF ICE

- Ice 2 inches thick will bear men on foot.
- Ice 4 inches thick will bear men on horseback.
- Ice 6 inches thick will bear cattle and teams with light loads.
- Ice 8 inches thick will bear teams with heavy loads.

SEED PLANTING IN THE UNITED STATES

NEW ENGLAND					
Kind of Crop	Date of Planting	Best Soil	Amount of Manure per Acre	Amount of Seed per Acre (1)	Weeks to Ma- turity
Corn	May 10 to 30	Sandy or clay loam	8 to 12 tons	8 to 12 quarts	14-17
Wheat	Fall or Spring	Clay loam	18 tons	2 bushels	20
Oats	April to May	Strong loam	6 to 8 tons	2 to 3 bushels	11-15
Barley	April to June 20	Strong loam	7 to 8 tons	2 to 3 bushels	10-15
Rye	April to May, Sept.	Medium loam	7 to 8 tons	5 to 6 pecks	40
Buckwheat	June 1 to 20	Light loam	4 to 6 tons	1 to 1½ bushels	10-15
White beans	May to June	Sandy loam	7 to 8 tons	8 to 16 quarts	8-14
Potatoes	April 15 to May 1	Rich loam	15 to 20 tons	8 to 20 bushels	12-20
Turnips	July 1 to Aug. 3	Sandy loam	10 tons	1 pound	10
Mangels	April 15 to May 5	Strong heavy loam	8 to 15 tons	4 to 6 pounds	17-22
Tobacco	Seed bed April	Sandy loam	8 to 12 tons		9-12

MIDDLE STATES

Corn	April 20 to May 30	Medium loam	8 to 12 tons manure	6 to 8 quarts	16-18	
Wheat	Sept. 20 to Oct. 20	Loam	8 tons; 300 lbs. fertilizer	2 bushels	41-43	
Oats	March to May	Moist clay loam	8 tons; 300 lbs. fertilizer	2 to 2½ bushels	16-17	
Barley	March to May	Clay loam	8 tons; 300 lbs. fertilizer	2 to 2½ bushels	13-16	
Rye	Sept. 1 to Oct. 1	Sand or gravel loam	8 tons; 300 lbs. fertilizer	1½ bushels	40-43	
Buckwheat	June to July	Loam	5 tons	¾ to 1½ bushels	8-10	
White beans	May to June	Sandy loam	8 tons	1½ bushels	13-14	
Potatoes	March to May	Loam	10 to 18 tons	8 to 15 bushels	14-22	
Sweet potatoes	May to June	Sandy loam		10 to 12 bushels	10-15	
Cabbage	March to July	Clay or sandy loam	300 to 600 lbs. fertilizer	4 to 8 ounces	8-15	
Turnips	July	Loam		2 to 5 pounds	10-12	
Mangels	May	Loam	10 to 20 tons	10 to 15 bushels	15-18	
Flax	May	Limestone loam		20 quarts	8-10	
Tobacco	Seed bed March	Sandy loam	Commercial fertilizer		15-20	
Hay, Timothy	August to October	Clay loam		6 to 8 quarts		
Hay, Clover	February to April	Clay loam		6 quarts		

CENTRAL AND WESTERN STATES

Corn	April 1 to June 1	Black or sandy loam	5 to 10 tons	6 quarts	16-20	
Wheat	Fall or Spring	Strong loam	8 tons	2 bushels	40-42	
Oats	April 1 to May 1	Clay loam	8 tons	2 to 3 bushels	12-14	
Barley	Fall or Spring (1)	Clay loam	8 tons	2 bushels	11-13	
Rye	September 1 to 30	Light loam	8 tons	1 to 2 bushels	35-40	
Buckwheat	June	Clay loam	5 tons	1 to 2 bushels	10-12	
White beans	May 10 to June 10	8 tons	1½ bushels		12	
Potatoes	March 15 to June 1	Sandy loam	5 to 10 tons	5 to 10 bushels	10-20	
Turnips	July 15 to August 30	Loam or muck	8 to 10 tons	1 to 6 pounds	10-16	
Mangels	April 15 to May 15	Sandy loam	8 to 12 tons	6 to 8 pounds	22-24	
Flax	March 15 to May 15	Loam	10 to 15 tons	2 to 3 pecks	15-20	
Tobacco	Seed bed, March	Sandy loam	8 to 10 tons	Oz. to 6 sq. rods	15-18	
Hay	April to May	Clay loam	10 tons	8 to 15 pounds		

SOUTHERN STATES

Cotton	February to May 15	Sandy loam (2)		1 to 3 bushels	20-30	
Corn	February to June	Rich loam	10 bu. cotton seed	8 quarts	18-20	
Wheat	Sept. to Nov.	Clay loam (2)	8 tons	2 bushels	43	
Oats	Feb., May, Sept.	Clay loam (2)	8 to 10 tons	2½ bushels	17	
Barley	April to May	Clay loam (2)	8 to 10 tons	2½ bushels	17	
Rye	Sept. to Oct.	Clay loam (2)	10 tons	1½ bushels	43	
White beans	March to May	Light loam	8 tons	1 to 2 bushels	7-8	
Cabbage	Oct., March to May	Light loam	6 to 10 tons	¾ to ½ pounds	14	
Watermelons	March 1 to May 10	Rich, light loam	5 tons; 300 lbs. fer.	2 to 7 pounds	16-20	
Onions	Feb. 1 to April 10	Loam or muck			16-24	
Sweet potatoes	May to June	Sandy loam		10 to 12 bushels	12-15	
Pumpkins	April 1 to May 1	Rich, light loam		4 to 7 pounds	17-20	
Tomatoes	Jan. 1 to Feb. 19	Rich, sandy loam		4 to 9 ounces	14-20	
Turnips	Feb., August, April	Rich, light loam		2 to 6 pounds	8-12	
Tobacco	Seed bed, March	Sandy loam	8 to 15 tons	Oz. to 6 sq. rods	18-20	
Cow peas	May 1 to July 15	Sandy loam	200 to 300 lbs. phos.	2 to 5 pecks	6-8	

(1) The standard varieties of seed planted in the several sections of the United States are as follows: CORN—New England, leaming, sanford, flint; Middle States, leaming, white dent, yellow dent; Central and Western States, leaming, sanford, flint, white dent; Southern States, hickory king, guardseed, Cox prolific. WHEAT—Middle States, fultz; Central and Western States, fultz, poole, fite; Southern States, fulcaster. OATS—New England, white; Middle States, white, black; Central and Western States, gray Norway, silver mine, Russian; Southern States, Texas rustproof. BARLEY—Middle States, mansbury; Southern States, Tennessee winter. RYE—New England, white; Middle States, white, winter; Central and Western States, winter; Southern States, excelsior winter. BUCKWHEAT—Middle States, silver hull; Central and Western States, silver hull. POTATOES—New England, green mountain, carmen 3, rose; Middle States, rose, carmen 3, rural 2; Central and Western States, hebron, rural, early rose; early Ohio. TOBACCO—Central and Western States, yellow prior, Spanish, white bury. HAY, CLOVER—Middle States, medium red. SWEET POTATOES—Middle States, yellow Jersey; Southern States, yellow Jersey. COTTON—Southern States, Texas storm proof. Spring wheat is to some extent grown in Ohio, Indiana, Illinois and many other States. It matures in eighteen to twenty weeks.

(2) In Texas the black loam is a good soil for cotton, corn, wheat and most other field crops.

QUANTITY OF SEED REQUIRED PER ROW AND ACRE

Asparagus.—2½ ounces to 100 feet of drill; 2 pounds should produce enough roots to plant an acre.

Beans, dwarf.—1 quart to 100 feet of drill; 1½ bushels per acre. Lima, ¾ bushel to an acre. Pole, 1 pint to 100 feet of drill; ¾ bushel per acre. Soup beans, ¾ bushel to ¾ bushel per acre.

Beet.—1 ounce to 50 feet of drill; 4 pounds to an acre.

Buckwheat.—1 bushel to an acre.

Cabbage, 1 ounce to 300 feet of drill; hotbed or greenhouse, 1 ounce should produce at least 2,000 plants; outdoors, 1 pound should produce at least 20,000 plants.

Carrot.—1 ounce to 100 feet of drill; 2½ pounds to an acre.

Cauliflower.—1 ounce should produce 3,000 or more plants.

Celery.—½ ounce to 100 feet of drill; 1 ounce should produce at least 10,000 plants.

Sweet Corn.—¼ to ½ pint to 100 hills; when planted in hills 1 peck to an acre.

Cucumbers.—1 to 2 ounces to 100 hills; 1 to 2 pounds to an acre.

Egg Plant.—1 ounce should produce 1,500 to 2,000 plants.

Endive.—¼ ounce to 100 feet of drill; 4½ pounds per acre.

Kale.—1 ounce to 300 feet of drill.

Kohl-rabi.—1 ounce to 300 feet of drill; 4 pounds per acre.

Leek.—1 ounce to 100 feet of drill; 4 pounds per acre.

Lettuce.—¾ ounce to 100 feet of drill; 3 pounds to an acre.

Melon, musk.—2 ounces to 100 hills; 4 x 4 feet, 2 pounds to an acre.

Onion, seed.—½ ounce to 100 feet of drill; 4 to 5 pounds per acre. Sets, 1 quart to 40 feet of drill; 8 bushels, and more, if large, per acre.

Parsley.—½ ounce to 100 feet of drill; 3 pounds to an acre.

Parsnips.—6 pounds to an acre.

Peas.—1 to 2 pints to 100 feet of drill; 1½ to 2½ bushels per acre.

Pepper.—1 ounce should produce 1,500 plants.

Pumpkin, 5 pounds to an acre.

Radish.—1 ounce to 100 feet of drill; 10 to 12 pounds per acre.

Rhubarb, 1 ounce of seed to 125 feet of drill; 3½ pounds to an acre.

Rye.—1½ bushels to an acre.

Salsify.—1 ounce of seed to 100 feet of drill; 8 pounds to an acre.

Spinach.—1 ounce to 100 feet of drill; 3-16 pounds to an acre; broadcast, 30 pounds to an acre.

Squash, summer.—4 ounces to 100 hills. Fall and winter, 8 ounces to 100 hills.

Tomato.—1 ounce of seed should produce 3,000 to 4,000 plants.

Turnip.—1 ounce to 200 feet of drill; 1 to 2 pounds to an acre.

Watercress.—3 pounds to an acre.

LENGTH OF GERM LIFE IN VARIOUS SEEDS

VEGETABLES	Years	VEGETABLES	Years	VEGETABLES	Years
Cucumber.....	8 to 10	Mustard.....	3 to 4	Parsley.....	2 to 3
Melon.....	8 to 10	Okra.....	3 to 4	Parsnip.....	2 to 3
Pumpkin.....	8 to 10	Rhubarb.....	3 to 4	Pepper.....	2 to 3
Squash.....	8 to 10	Spinach.....	3 to 4	Tomato.....	2 to 3
Cauliflower.....	5 to 6	Turnip.....	3 to 6	Egg Plant.....	1 to 2
Artichoke.....	5 to 6	Asparagus.....	2 to 3		
Endive.....	5 to 6	Beans.....	2 to 3		
Pea.....	5 to 6	Carrots.....	2 to 3	Herbs.....	Years
Radish.....	4 to 5	Celery.....	2 to 3	Anise.....	3 to 4
Beets.....	3 to 4	Corn (on cob).....	2 to 3	Caraway.....	2
Cress.....	3 to 4	Leek.....	2 to 3	Summer Savory.....	1 to 2
Lettuce.....	3 to 4	Onion.....	2 to 3	Sage.....	2 to 3

TIME REQUIRED FOR SEEDS TO GERMINATE

VEGETABLES	Best Germ. Temp.	Days	VEGETABLES	Best Germ. Temp.	Days	VEGETABLES	Best Germ. Temp.	Days
Bean.....	75	5 to 10	Corn.....	75	5 to 8	Pea.....	65	6 to 10
Beet.....	60	7 to 10	Cucumber.....	80	6 to 10	Pepper.....	80	9 to 14
Cabbage.....	70	5 to 10	Endive.....	60	5 to 10	Radish.....	60	3 to 6
Carrot.....	60	12 to 18	Lettuce.....	60	6 to 8	Tomato.....	80	6 to 12
Cauliflower.....	70	5 to 10	Onion.....	60	7 to 10	Turnip.....	70	4 to 8
Celery.....	60	10 to 20	Parsnip.....	60	10 to 20			

LENGTH OF TIME TREES AND BUSHES WILL BEAR

	Years		Years		Years
Apple.....	25 to 40	Gooseberry.....	20	Plum.....	20 to 25
Blackberry.....	6 to 14	Peach.....	8 to 12	Raspberry.....	6 to 12
Currant.....	20	Pear.....	50 to 75	Strawberry.....	1 to 3

USUAL DISTANCES FOR PLANTING TREES

	No. feet each way		No. feet each way		No. feet each way
Apple.....	30 to 40	Plum.....	16 to 20	Apricots.....	16 to 20
Apples, dwarf.....	10 to 15	Peaches.....	16 to 20	Nectarines.....	16 to 20
Pears.....	20 to 30	Cherries.....	16 to 25	Quinces.....	8 to 14
Pears, dwarf.....	10 to 15				

NUMBER OF PLANTS REQUIRED PER ACRE AT VARIOUS DISTANCES

1 in. x 10 in.—627,279	12 in. x 30 in.—17,424	18 in. x 30 in.—11,616	3 ft. x 5 ft.—2,904
1 in. x 12 in.—522,720	12 in. x 3 ft.—14,520	18 in. x 3 ft.—9,680	4 ft. x 4 ft.—2,722
2 in. x 10 in.—313,632	12 in. x 4 ft.—10,890	18 in. x 4 ft.—7,260	4 ft. x 5 ft.—2,178
2 in. x 12 in.—261,360	12 in. x 5 ft.—8,712	18 in. x 5 ft.—5,804	5 ft. x 5 ft.—1,742
3 in. x 12 in.—174,240	15 in. x 18 in.—23,232	2 ft. x 2 ft.—10,890	5 ft. x 6 ft.—1,452
4 in. x 12 in.—130,680	15 in. x 2 ft.—17,424	2 ft. x 3 ft.—7,260	6 ft. x 6 ft.—1,210
6 in. x 12 in.—87,120	15 in. x 3 ft.—11,619	2 ft. x 4 ft.—5,445	6 ft. x 7 ft.—1,037
12 in. x 12 in.—43,560	15 in. x 4 ft.—8,712	2 ft. x 5 ft.—4,356	6 ft. x 8 ft.—907
12 in. x 15 in.—34,848	15 in. x 5 ft.—6,969	3 ft. x 3 ft.—4,840	7 ft. x 7 ft.—888
12 in. x 18 in.—29,040	18 in. x 20 in.—17,424	3 ft. x 4 ft.—3,630	8 ft. x 8 ft.—690
12 in. x 24 in.—21,780	18 in. x 2 ft.—14,520		

REQUIREMENTS OF VARIOUS PLANTS

P = Potash, Ph = Phosphoric acid and N = Nitrogen.

Crop	Seeding Methods	Soil Requirements	Tillage Requirements	Fertilizer Requirement
Alfalfa	Broadcast	Fertile loam	Clip weeds	P and Ph
Artichokes	Hills 3 ft. wide	Well-drained loam	Surface plowing	Manure
Barley	Drill, broadcast	Fertile clay	After clover	Strong P
Broom Corn	6 in. apart in row	Rich loam	Frequent, shallow	Manure
Buckwheat	Drill, broadcast	Medium loam		P and lime
Beans (field)	4 in. apart in row	Dry clay loam	Frequent, shallow	P and Ph
Clover, red	Broadcast	Clay loam	After grain	Lime and P
" alsike	Broadcast	Moist loam	With grasses	Lime and P
" crimson	Broadcast	Clay loam	Fine seedbed	Lime and P
Corn	Rows or hills, 3½ ft. wide	Fertile loam	Frequent, shallow	N, P and Ph
Cotton	Rows 4 ft. wide	Deep loam	Surface plowing	Ph and P and N
Cowpeas	Rows 30 in. wide or broadcast	Loose loam	Light plowing	Ph and P
Flax	Rows 30 in. wide or broadcast	Rich deep loam		N, no manure
Grasses, orchard	Broadcast	Rich clay loam		Manure
" blue	Broadcast	Limestone clays		Manure
Hemp	Broadcast	Loose loam		Manure
Hops	Hills 7x7 ft.	Rich loam	Light plowing	Manure
Kafir corn	3 ft. in rows	Rich loam	Frequent, shallow	Manure
Millet	Broadcast	Sandy loam		Manure
Oats	Drill, broadcast	Rich loam		N, Ph or manure
Peanuts	Rows 3 ft. wide	Sandy loam	Shallow	P and Ph
Potatoes	Rows 3 ft. wide	Rich sandy loam	Frequent, shallow	Rotted manure
Rape	Broadcast or rows 30 in. wide	Rich loam		Manure
Rice	Drill, broadcast	Clay loam		N and Ph
Rye	Drill, broadcast	Dry loam		Manure
Sorghum	Seed broadcast	Rich loam	Shallow	Manure
Soybeans	Rows 25-30 in. wide	Light loam	Shallow	Manure or N, Ph and P
Sugar Beets	Rows 18 in. apart	Sandy loam	Frequent, shallow	P and Ph or Manure
Sugar Cane	Rows 5-7 ft. wide	Rich loam	Shallow plowing	N and Ph
Tobacco	Rows 3 ft. wide	Rich loam	Shallow plowing	N and P and Ph
Vetch	Broadcast	Sandy loam		P and Ph
Wheat	Broadcast	Rich loam		Ph and N and P

EFFECTS OF ELECTRICITY ON GROWTH

A long succession of ingenious experiments has recently been made in regard to the effect of electricity upon the growth of plants and animals, and it is now possible to say that startling results have been reached in one direction.

Beyond all question young poultry respond to electric stimulus applied in a particular way with astounding rapidity. They surpass the best on record in speed of growth. They keep their health in crowded conditions and become almost independent of season.

In the south of England, on the biggest poultry farm in the world, experiments of this nature have been carried on. Eight hundred chickens in two equal groups were nurtured on the intensive system—that is, in flats, almost trays, one above the other. One group of 400 was treated by the electric system, and so charged were the chickens with electricity that a shock could be distinctly felt if the finger were put to the beak of a chicken.

The chickens in this 400 grew to marketable size—that is, as "petits poussins"—in five weeks, and of the 400 only six, and those weaklings in the beginning died.

Of the other 400 nearly half died, it being late in the year for healthy growth, and the survivors took three months to reach marketable size.

EXPENDITURES FOR FERTILIZERS

The expenditures for fertilizers are a suggestive feature in the industry. It appears that the national outlay for that purpose in 1900 was \$53,000,000, and in 1910 it was \$114,000,000. It also appears that in the outlay of 1910 more than one-half of the totals is charged to the South Atlantic account for use on cotton and tobacco. About 25 per cent was taken by the

North Atlantic States. The remainder, less than one-quarter of the entire quantity, was used on the farms that in their aggregate represent about 80 per cent. of the farm acreage of the country. The farmers of Illinois spent in 1910 only \$571,000 for fertilizers, while the farmers of New York State spent over \$7,000,000. The fertilizer bill of the two Dakotas amounted to only \$20,000 while Vermont paid \$570,000 and Alabama paid \$7,625,000.

MAKING A GOOD LAWN

Plow and prepare land in the fall or late summer thoroughly as for a garden, fertilizing with chemicals and rotted manure. Grade the lawn with a line before winter.

In the spring re-grade the surface, cultivating not to exceed 2 inches deep; add 500 pounds per acre of the following mixture: 300 pounds nitrate of soda, 400 pounds muriate potash, 1,300 pounds acid rock, worked into the soil with a hand rake.

Not earlier than June 1st, sow a mixture of equal parts by weight of white clover, blue grass and Rhode Island Bent grass, or Henderson's lawn mixture. Sow thickly. The ground should be colored with seed; cover with a hand rake and roll.

Keep out the weeds; cut frequently with a lawn mower but do not clip too closely. Fertilize with a complete chemical fertilizer in the spring, once in midsummer, and again in the fall. It is not necessary to top dress or mulch with stable manure.

A lawn prepared in this manner will last indefinitely.

Over six million acres of land are under tobacco cultivation throughout the world.

The salt beds of Chili alone could supply the world with salt for ages to come, the mineral being found in large deposits 99 per cent. pure.

SPRAYING CALENDAR FOR FRUITS AND VEGETABLES

PLANT	FIRST APPLICATION	SECOND APPLICATION	THIRD APPLICATION	FOURTH APPLICATION	FIFTH APPLICATION
APPLE (For scab, codling moth, bud moth, tent caterpillar, canker worm, plum curculio.)	Spray before buds swell with copper sulphate.	Just before blossoms open bordeaux and paris green.	When blossoms have fallen, bordeaux and paris green.	Eight to 10 days later, bordeaux and paris green.	Use ammoniacal copper carbonate in Sept. for scab if season is wet.
BEAN (Anthracnose, leaf blight.)	When third leaf expands, bordeaux.	10 days later, bordeaux.	14 days later, bordeaux.	14 days later, bordeaux.	Spraying with bordeaux after pods are half grown will injure them for market.
CABBAGE AND CAULIFLOWER (Worms, aphids.)	When worms first appear, kerosene emulsion or paris green.	Repeat the first application when necessary.	If plants are heading, use hellebore.	After heads form, use saltpeeter for worms, teaspoonful to 1 gallon water: emulsion for aphids.	
CHERRY (Rot, aphid, slug, plum curculio, black knot.)	As buds break, bordeaux: when aphids appear, kerosene emulsion.	When fruit has set, bordeaux and arsenate of lead. If slugs appear, dust leaves with air-slaked lime or hellebore.	10-14 days if rot appears, bordeaux. Arsenate of lead for plum curculio.	10-14 days later, weak solution of copper sulphate, 3 oz. to 50 gals. water.	Repeat after every rain when fruit begins to color.
CURRENT (Worms, leaf blight.)	Bordeaux before leaves start. At first appearance of worms, paris green.	Repeat with paris green when necessary. Ammoniacal copper carbonate for blight.	Bordeaux for blight after fruit is picked.	Use whale-oil soap for the San Jose scale if necessary.	Cut canes close if pests are bad.
GRAPE (Fungous diseases, rosbug, etc.)	In spring when buds swell, bordeaux.	Just before flowers unfold, bordeaux and paris green.	When fruit has set, bordeaux and paris green.	2-4 weeks later, bordeaux.	Weak solution of copper sulphate.
NURSERY STOCK (Fungous diseases, San Jose scale.)	When first leaves appear, bordeaux and paris green or arsenate of lead.	Repeat at intervals of 10-14 days through the summer.	For scale, burn or fumigate with hydrocyanic acid as it appears.	Cut out leaf blight as fast as it appears.	Dig all trees that have crown galls.
PEACH, NECTARINE, APRICOT (Rot, mildew, scab.)	Before the buds swell, bordeaux.	Just before blossoms open, weak bordeaux (2-4-50) and arsenate of lead for curculio.	When fruit is set, weak bordeaux.	As fruit shows color, potassium sulphide, 1 lb. to 50 gals. water.	Repeat once or twice until fruit is ripe.
PEAR (Leaf blight, scab, psylla, codling moth, blister mite.)	As buds are swelling, bordeaux.	Just before blossoms open, bordeaux and paris green. Kerosene emulsion or whale-oil soap when leaves open for psylla.	After blossoms have fallen, bordeaux and paris green. If necessary, kerosene emulsion or soap.	8-12 days later, repeat third.	10-20 days later ammoniacal copper carbonate.
RASPBERRY, BLACKBERRY, DEWBERRY (Rust, anthracnose, leaf blight, saw fly.)	Before buds break, bordeaux.	Bordeaux and paris green just before the blossoms open.	(Orange or red rust is treated best by destroying the plants attacked in its early stages.)	Spray after fruit is gathered with bordeaux.	10-20 days later, repeat.
STRAWBERRY (Rust, leaf blight, mildew.)	As soon as growth begins, bordeaux. Dip plant in bordeaux before setting.	When fruits are setting, bordeaux.	Spray new plantation bordeaux.	Repeat if weather is moist.	Dig the worst diseased plants.
TOMATO (Rot, blight, flea beetle.)	Soon after planting use bordeaux.	Repeat as soon as fruit is formed. Fruit can be wiped if disfigured by bordeaux.	Repeat first when necessary.	Keep the rotting fruit picked closely.	Clean up infected vines if remedies fail.
POTATO (Beetles, blight and rot.)	Spray with paris green and bordeaux when vines are small.	Repeat before insects become too numerous.	Repeat for blight and rot at intervals of 2 or 3 weeks during summer.	Spray with paris green for late bugs.	Dig early if rot is prevalent.

INFORMATION FOR THE FARMER

TARIFF AND IMPORTS

The statistics for the first year under low duty and free trade show some surprises compared with earlier estimates. For example, imports of corn into the United States (chiefly from Argentina) were only 12 million bushels, or a "drop in the bucket" when placed beside our annual production of 3,000 millions in a full bumper year, and 2,500 millions in the crop of 1914-15. The year closed June 30, 1914, and the European War ensuing, upset all calculations as to the foreign movement during the autumn and winter following.

The 1914 imports of eggs under free duty were 5,833,000 dozen worth a little over a million dollars, compared with imports for the fiscal year 1913 of 1,367,000 dozen.

Imports of cattle and sheep showed a gain proportionately, but were insignificant considering domestic consumptive requirements. Butter imports jumped up heavily. For the first time imports of fresh meats made an impressive showing. In the fiscal year ended June 30, under the duty free provision, for foreign beef, largely from Argentina, came into this country to the extent of 180 million pounds, worth \$15,000,000; mutton 13 million pounds and pork nearly five millions. In our comparative table, figures are given (as per foot notes) covering the imports in the named year immediately following the going into effect of other Federal tariff laws.

Imports of Agricultural Products Under New Tariff Law
(Fiscal year ended June 30, compared with earlier years, in round thousands.)

	1914	1913	1912	1911	1910 b	1909	1908	1898 c
Cattle, number	868	422	318	183	196	139	92	329
Sheep, number	223	105	23	53	126	103	225	392
Corn, bushels	12,367	903	53	—	—	258	20	3
Oats, bushels	22,284	724	2,622	107	1,034	6,667	364	9
Wheat, bushels	1,979	798	2,699	509	164	41	342	2,047
Wheat flour, barrels	90	108	159	142	145	92	40	3
Cotton, a	123	122	109	113	86	86	71	53
Eggs, dozens	5,833	1,367	973	1,573	818	289	232	166
Hay, tons	171	156	699	337	97	7	10	4
Hops, pounds	5,382	8,494	2,991	8,557	3,200	7,387	8,493	2,376
Butter, pounds	7,842	1,162	1,026	1,008	1,360	646	780	32
Cheese, a	64	49	46	45	41	35	32	10
Cream, gallons	1,774	1,247	1,120	2,333	732	—	—	—
Milk, dollars	33	136	62	75	63	23	11	68
Sugar, a	5,067	4,740	4,105	3,938	4,095	4,189	3,372	2,690
Leaf tobacco, a	60	67	53	46	47	42	32	10
Beans, bushels	1,634	1,048	1,004	1,037	1,015	3,355	1,657	164
Onions, bushels	1,115	789	1,436	1,515	1,024	574	1,275	489
Potatoes, bushels	3,646	327	13,734	219	353	8,383	404	1,171
Wool, a	38	195	193	138	264	266	126	133

a Round millions of pounds.

b The tariff dated August 5, 1909, went into effect instantly, hence fiscal year 1910 practically covers first year of operation under it.

c Tariff act of July 24, 1897, passed and became the Dingley act, operative at once. Hence the imports fiscal year 1898 are a little short of 12 months.

SHIP EGGS BY PARCEL POST

Parcel post is of particular value to the man whose flock of hens is too small or who lives too far from express service to permit him to ship his eggs in the regular commercial case, which holds 30 dozen eggs, according to the Department of Agriculture after a five months test.

In the course of these experiments the department shipped 9,131 eggs in 466 lots. Of these, 327, or slightly less than 3.6% were broken, but only 209, or slightly less than 2.3%, were absolutely wasted. The others, though broken, could still be used. The percentage of breakage, moreover, will be greatly reduced, it is said, when the employees of the post office become more accustomed to handling such fragile material.

That the eggs should be properly packed is, of course, essential. If possible only infertile eggs should be sent to market. Eggs should never be washed when intended for high-class trade, since the process removes a natural mucilaginous coating and opens the pores of the shell.

After thorough elimination of the unfit, the eggs that remain should be carefully packed in a container of corrugated pasteboard, metal, wood, or other suitable material. The post-office regulations require this container to be so wrapped that nothing can escape from the package, and each egg to be wrapped separately in excelsior, cotton, or some such material. Any soft paper serves the purpose quite well.

The larger the shipments that the producer can arrange to make, the cheaper can he afford to sell his eggs. Within the first and second zones of the parcel post service, a package costs five cents for the first pound and only one cent for each additional pound. Ordinarily, eggs weigh about $1\frac{1}{2}$ pounds a dozen, which, with the additional weight of the wrapping and container, would make a package of a dozen eggs weigh between two and three pounds. The postage on this would be seven cents. If another dozen eggs were included in the package, the postage would not be more than nine cents, or $4\frac{1}{2}$ instead of seven cents a dozen eggs.

To the value of the eggs and the cost of postage must be added the cost of the container and the wrapping. For two dozen eggs this may be estimated at eight cents. With postage at nine cents it would therefore cost seventeen cents to market two dozen eggs, or $8\frac{1}{2}$ cents a dozen. By shipping in 10-dozen lots, it is estimated that the marketing cost can be reduced to 4.7 cents a dozen.

Where the container can be used more than once this cost can of course be somewhat reduced. Large sized containers will stand from two to four trips, smaller ones three to five, so that it will pay the producer to induce his customers to return the containers periodically. The postage required for this is of course deducted from the bill for the next shipment.

The chief drawback to marketing eggs by parcel post appears to be the time and trouble involved in packing them. This is compensated for by the extra price that can always be obtained for products that are absolutely reliable. At bottom, therefore, the shipper's success depends upon the care with which he safeguards the reputation of his products. Satisfied customers will soon build up his business for him.

DEVELOPMENT OF RURAL ORGANIZATIONS

Farmers have rapidly been tending toward organization during the last 40 years and their position in this respect is stronger, taking the country as a whole, than it has ever been before. The many attempts, both successful and otherwise, have all worked toward learning the needs and the possibilities of farmers' clubs.

At present the States of the upper Mississippi valley are honey-combed with farmers' mutual insurance companies. According to T. N. Carver, director of the Federal Rural Organization Service, these have been more uniformly successful than any other type of farmers' organizations. In those States which publish official lists of these companies, there is a total of 1867 companies. These are located by States as shown in the table on the following page:

Farmers' Mutual Insurance Companies

Arkansas	7	Nebraska	66
California	18	New Hampshire	19
Colorado	5	New Jersey	23
Connecticut	14	New York	163
Delaware	8	North Dakota	33
Georgia	7	Ohio	102
Idaho	5	Oklahoma	1
Illinois	230	Oregon	3
Indiana	76	Pennsylvania	237
Iowa	176	Rhode Island	1
Kansas	29	South Carolina	19
Kentucky	25	South Dakota	33
Maine	54	Tennessee	17
Maryland	17	Texas	25
Michigan	77	Washington	6
Minnesota	150	West Virginia	11
Montana	7	Wisconsin	203
Total			1,867

Farmers' Cooperative Creameries

Coöperative creameries have taken an important place among small rural organizations. It has been declared by some that in a stock company there is real coöperation. Any organization of this kind is to a great extent coöperative, however, if it is managed with a view to giving the farmer a better price for his butterfat or his grain. Under the form of organization in which one vote is allowed for each share of stock there is always danger that the coöperative spirit will be destroyed. Mr. Carver cites as an example the case of a man who owns a large number of shares in a creamery but has very few cows. He is likely to be more interested in dividends than in paying a high price for butterfat. The number and location of farmers' coöperative creameries in the United States is shown in the following table:

Arkansas	1	Maryland	3	Oklahoma	10
Arizona	1	Massachusetts	8	Oregon	8
California	36	Michigan	105	Pennsylvania	99
Colorado	14	Minnesota	632	South Carolina	1
Connecticut	15	Mississippi	1	South Dakota	46
Delaware	2	Missouri	16	Tennessee	3
Georgia	3	Montana	9	Texas	19
Idaho	3	Nebraska	14	Utah	6
Illinois	62	Nevada	3	Vermont	59
Indiana	67	New Hampshire	6	Virginia	6
Iowa	308	New York	120	Washington	17
Kansas	7	North Carolina	2	West Virginia	2
Kentucky	14	Ohio	32	Wisconsin	355
Maine	7	North Dakota	43	Wyoming	1
Total					2,165

Coöperative Cheese Factories

Along with the development of creameries has come the growth of coöperative cheese factories and in this respect, Wisconsin is far in the lead. The number of these in various States is shown in the following table:

California	3	Oregon	2
Illinois	2	Pennsylvania	13
Indiana	1	South Dakota	1
Michigan	4	Utah	6
Minnesota	15	Vermont	1
Missouri	2	Washington	3
New York	34	Wisconsin	247
Ohio	2		
Total			336

Coöperative Farmers' Elevators

Coöperative farmers' elevators have had a particularly large increase in recent years in the grain growing States. These have had their obstacles as have all other coöperative organizations, yet at present they are in a strong position. The number of these in various States is as follows:

Arkansas	2	Montana	25
Colorado	4	Nebraska	224
Idaho	4	North Dakota	320
Illinois	260	Ohio	23
Indiana	28	Oklahoma	36
Iowa	332	Oregon	3
Kansas	149	South Dakota	220
Kentucky	1	Texas	4
Michigan	22	Washington	18
Minnesota	286	Wisconsin	51
Missouri	8		
Total			2,020

There has been an exceedingly rapid growth of local associations for cow testing, for the ownership of pure bred sires, for purchasing fertilizers, seeds, feeding stuffs and general merchandise. To attempt to give a list of them would be out of the question since many of them have no official connection and are so local in character as to be almost unknown.

Must Unite Scattered Forces

Having studiously observed the development of these organizations, Mr. Carver outlines the things which appear to him as necessary for improving their future condition. In the first place, he says, it is of the utmost importance that these scattered movements be brought together and their work systematized. One of the functions of the Rural Organization Service, of which he is head, is to assist in bringing this about. When this is accomplished better conditions will be possible with respect to marketing farm products. Each farming community is a part of the world market, and the necessity for successful marketing on the one hand and successful purchasing on the other is a fundamental reason for the need of thorough rural organization.

Problems of sanitation also require the coöperative effort of many farmers, and as Mr. Carver describes it, it is as important for farmers to work together in exterminating certain disease germs as it was for our ancestors to exterminate the wolves and bears which preyed upon them and their flocks. Community organization can become the great factor in the elimination of disease in the country.

In organizing a rural community for any of the various purposes, it should be remembered that there is no magic about coöperation. Its chief function, in fact, is to assist farmers in improving their business methods. There must be as a basis of success, the idea of eliminating waste and replacing inefficiency with good management. One of the most frequent causes of failure, is the development of a spirit of spite or jealousy which grows until the organization is wrecked. Careful bookkeeping and thorough auditing must also be part of the system in a successful coöperative venture.

When marketing is to be the aim of an organization, definite steps should be taken toward improving the quality of the product to be sold and standardizing it to conform with a specified type. One of the difficulties which has always prevented successful dealing directly between the producer and the consumer has been the necessity for grading and selecting of the product which must be done by someone. If producers will take it upon themselves to handle this work and put out a standard product of high quality, they can successfully deal directly with consumers. It is also to their advantage to adopt a trademark or brand which will enable the consumers to recognize their products on the market. The consumer will rapidly learn to recognize the trademark which has always been associated with first class goods and the confidence which will develop is a very definite asset.

Businesslike Methods Essential

One of the reasons cited for the fact that manufacturers often refuse to sell directly to farmers' organizations is that these organizations are sometimes unprepared to handle the proposition in a businesslike way. In that case, the manufacturer greatly prefers to deal through an agent who handles the work promptly and does not need to be shown how. The cure for such a situation is for those farmers who have business training to take the leadership, and not only strengthen their own organizations in this regard, but also help to eliminate irresponsible organizations from the field.

Credit Harmful if too Easy

Concerning the organization of various types of credit associations, Mr. Carver declares that probably as many farmers are suffering as much because of the fact that they have too much credit as they would were their credit opportunities too limited. To be able to borrow money, at no matter what rate of interest, is not a good thing for the borrower, if he invests it so that it does not repay the interest. One fact which has never been sufficiently emphasized concerning the credit organizations in other countries, is that they refuse credit as readily and as often as they give it. They refuse credit not only on the ground that the would-be borrower has no security to give, but also on the ground that it will not pay him to borrow. They will not permit him to borrow unless his investment is going to be a profitable one so that he will be able to pay back the loan. The directors of these coöperative banks discuss the purpose for which he wishes to borrow, and thus not only educate the members of the society, but protect him against himself.

GROWTH OF THE SILO PROPOSITION ON THE FARM

No census of the number of silos has ever been made, and no absolutely accurate information in regard to the number is available, but in view of the importance of the economic changes which are to follow the general use of silage in meat production, an investigation was recently made. Three counties were selected in each of the States of the great central valleys, so as to present as fairly as possible the different phases of the cattle industry in each State, and in each county a count of the number of silos in each township was secured. The average result in the three counties, taking into consideration the known facts as to number and size of farms and number of dairy cows and of other cattle per farm, was applied to the whole State and a figure representing the probable number of silos in each State worked out.

Of course, no claim is made of complete accuracy, but the methods followed warrant the belief that the figures presented may be accepted as fairly typical of the present state of silo development. The total number of silos in operation on January 1, 1914, the number built during 1913, and the average tonnage capacity per silo, in each State covered by this investigation, are estimated as follows:

ESTIMATED NUMBER OF SILOS, JANUARY 1, 1914			
	Number of silos	Silos built in 1913	Capacity, tons
Ohio	10,560	3,432	51
Michigan	10,812	1,088	93
Indiana	11,500	2,760	105
Illinois	17,340	5,202	101
Wisconsin	41,535	8,236	101
Minnesota	2,414	516	113
Iowa	16,236	3,267	115
Missouri	6,726	2,679	110
Kansas	6,510	1,680	123
Nebraska	3,240	900	132
North Dakota	770	250	100
South Dakota	1,300	455	120
Oklahoma	1,360	460	160
Total	130,283	30,925	

It will be noted that almost one-fourth of the total number of silos now in use were built during 1913, and in all probability at least one-half were built within the last two years. The number built in 1914 greatly added to these interesting totals. Of course, by far the greater number are as yet in the dairy regions, Wisconsin, northern Illinois, and Iowa easily leading in numbers; but in the States in which cattle feeding is most practiced are the ones that now show the largest percentage of annual increase. Central Indiana and Illinois, the north half of Missouri, eastern Kansas and central Oklahoma are beef-producing districts that are marked by a rapid silo development during the past two years.

The use of the silo in feeding beef cattle is responsible for an increase in the average size of the silo. The size of the silo depends upon several factors, the principal being the daily consumption of silage, as the top must be removed promptly and uniformly over the whole surface, and as the amount required daily for the average dairy herd is less than the amount required for a feed lot of steers, it follows that the use of silage in meat production has resulted in the erection in the last two years of silos of larger capacity.

Large Economic Importance

The economic importance of the present development of silage feeding would be hard to overestimate. About 70%, or roughly, 75,000,000 acres of our corn area used to produce corn to be fed upon the farm. Husking and gathering this corn not only constitutes one of the hardest manual tasks performed upon the farm, but is one of the largest items of cost in growing corn. An average acre of corn land produces perhaps one ton of corn on the cob and 11 tons of stalks, blades and husks when cured to a reasonable degree of dryness.

In the great corn belt of the West the ears are husked and then the kernels are shelled off, such separation involving great labor and expense. Then the 11 tons of feeding material is allowed to go to waste, an incumbrance in the field, except for a small part utilized in the pasturing of cattle for a few weeks at the close of the year. It follows that on 75,000,000 acres devoted to the growth of feed for farm animals by far the greater part of the

annual growth of feeding material is absolutely thrown away. The use of the silo will prevent this waste and make it possible to utilize in meat production 12 tons of feeding material per acre instead of the one ton now so utilized.

The silo furnishes a means of bridging the widening disparity between meat production and population, through a complete utilization of the feeding stuffs produced and the consequent ability to grow and fatten more cattle per acre of farm land than is possible under any other form of cattle feeding.

DETERMINING ACTUAL PROFITS IN ORCHARDING

In the Pacific Northwest and in Colorado, apple growing on a commercial scale is so systematized that orchardists can tell with some accuracy the output and the income in a given season. In the older, eastern, fruit States this knowledge is not so generally obtainable. Professor U. P. Hedrick of the New York Experiment Station, however, has recently published some very valuable reports on this subject, covering the work of several years' duration. He first of all selected a well conditioned orchard near Rochester, typical as could be found in the apple belt of western New York as representing normal conditions. Here is an abstract of his report: "The trees are Baldwin apples, 27 years old at the beginning of the experiment, 37 now. Our accounts tell what each of the orchard operations has cost, the number of bushels of fruit produced and the selling price.

The first information we must have in getting at a problem is the number of barrels of apples per acre a year. The exact number for the cultivated plot in this ten-year average is 116.8 barrels. Graded, the acre average for the period is 79.2 for barreled stock, 37.6 barrels of evaporator and cider stock. Reducing these figures to the tree unit we have for barrel stock 2.93, for evaporator stock 1.4. Total a tree, 4.33 barrels.

The proportion of evaporator and cider stock is seemingly high, made so by two autumn gales which in different seasons gave many windfalls. The first expense item is interest, \$25 an acre on investment, a sum which divided by 116.8, the number of barrels to the acre, gives us a charge of 21 cents a barrel as interest on investment; taxes over \$1.50 an acre on each barrel of apples 1.2 cents. Depreciation in teams and tools we must add 17 cents a barrel of apples.

Cost of Orchard Operations

Passing now to orchard operations we find that the annual cost of tillage an acre for the decade was \$7.39, making the amount to be charged against each barrel of fruit 6.3 cents. The price paid for team work at the beginning of the period was \$4 a day of 10 hours, but the price advanced to \$5, a fair average being \$4.50. Tillage includes the labor of putting in the cover crop, but not the cost of the seed. For the cover crop seed, in this orchard, usually red clover must be added, \$2.74 an acre for seed, or 2.3 cents a barrel of apples.

The expense of annual pruning an acre was \$3.56. As there are 27 trees to the acre in this orchard the cost was 13.1 cents a tree. The cost of apples was 3 cents a barrel. The average price paid for the work was \$2 a day of 10 hours.

The average cost an acre for spraying was \$11.28, a tree 41.8 cents, a barrel of apples 9.6 cents. The spraying was done the first few years with a hand sprayer, then for several years with a gas sprayer and the last three with a gasoline power outfit with two runs of hose. The first five years bordeaux and arsenate of lime were used, the last five lime-sulphur and arsenate of lead. The orchard was sprayed three times a season the first five of the ten seasons. The second five years it was sprayed but twice a season, the first application being the dormant spray, made just before buds began to swell, the second just as blossoms dropped. This treatment has given an almost perfect crop.

The last of the cost of production charges is that of superintending the work. The services of the average fruit grower are worth more than the \$2 a day allowed for actual work. This deficiency should be made up by a charge for superintending the work. The charge to be entered against a barrel of apples for superintending is 25 cents, against the acre unit \$30, against an apple tree \$1.10.

Picking, packing, sorting and hauling have been done in diverse ways during the 10 years and the items cannot be segregated. But the total cost of these operations has been 24.4 cents a barrel. The apples, it should be said, were sorted and packed in the field. The crop was hauled to a station $1\frac{1}{2}$ miles over a country road not better than the average.

The following is a summary of the cost sheet for a barrel of apples:

Cost of a Barrel of Apples

Interest on investment	21.0
Taxes	1.2
Tilling	6.3
Pruning	3.0
Spraying	9.6
Cover crop	2.3
Superintending orchard	25.0
Picking, packing, sorting and hauling	24.4
Total, cents	92.8

All of the first and second apples from the Auchter orchard have been packed in barrels. The average price of barrels for 10 years has been 36 cents each, the price fluctuating from 30 to 40 cents. The culls have been handled in crates and a charge for packages cannot be entered against them. Adding the cost of the barrel to the cost of production we have \$1.29 as the total cost of a barrel of apples. We come now to the average price of apples for the past 10 years as grown in the Auchter orchard. We received an average of \$2.60 for all the first and second barreled stock sold. For evaporator and cider stock we received 67 cents a barrel, rather above the average, possibly because in two seasons gales gave an abnormally large quantity of very good windfalls.

We are now ready to calculate profits and declare dividends: subtracting \$1.29, the cost of a barrel of apples, from \$2.60, the amount received, we have a net profit of \$1.31 a barrel for first and second grades. Multiplying by 79, the number of barrels an acre, we have \$103.49 as the profit an acre for first and second grades. Subtracting 67 cents from 93 cents we have 26 cents as the difference between average cost of production and average selling price of culls. Multiplying 37.5, the number of barrels of culls an acre, by 26, we have a loss of \$9.75 an acre on the culls, leaving the average net profit an acre in this orchard for the past 10 years \$93.74, making a dividend on the investment of \$500 an acre of 18 3/4 %.

In closing I must make several general statements: First, we have not been skimming the pan in the Auchter orchard work. The milk left is as good as that taken. We shall expect this orchard, barring accidents, to do as well, or rather better, during the next twenty years than it has in the past ten. Secondly, as good or better dividends are coming from many New York apple orchards similarly situated and similarly cared for. The figures given are a fair average for a Baldwin orchard in its fourth decade. The cost of production is, if anything, high, since the State cannot do work as cheaply as an individual. The extra cost, if such there be, has been offset, however, by the skill and efficiency with which Mr. Auchter, in direct charge of the work, has managed every detail. Third, the profits of this orchard are probably many times greater than those from the average plantation in New York. Indeed, I suspect that if we had the financial history of every apple tree in New York we would find that the total cost of all quite equals the receipts from all—in other words, many are losing and few are winning. This is the history of financial endeavors in all industries."

CONTROLLING SWINE CHOLERA

The use of hog cholera serum seems to be the only seriously effective method of combating the disease. The serum must be prepared right in order to protect hogs. That goes without saying. Farmers must get their serum from the State college or from some commercial plant which has a Federal license. It is disastrous to attempt anything else.

All plants manufacturing serum for interstate shipment must secure a Federal license, after the plant has been carefully inspected by a representative of the Department of Agriculture. Unfortunately in a recent inspection a great many of these concerns could not pass. In fact, aside from the Federal plants, a number of those operated by the various states, and possibly a dozen commercial institutions, no other concerns have a Federal license. It has been recommended and the recommendation is a good one, that no serum is to be used except from a plant which has a proper Federal license.

Anti-hog cholera serum is used principally as a preventive. It may cure a large number of hogs at the early stages of the disease. It is of particular value, however, for hogs that are not visibly sick.

Then farmers should make careful preparation before beginning the inoculation. Hogs that are sick should be separated from those that are well and marked so as to distinguish them.

Serum is administered by injecting it deeply under the skin with a hypodermic syringe. Before making the injection care must be taken to see that the syringes and needles are not only absolutely clean, but that they have been previously boiled in water for 10 or 15 minutes. This kills all the germs and renders them absolutely sterile. It is a good idea to see that the needle and syringe are kept perfectly clean and do not become soiled during use. Lay them on a plank upon which a clean towel has previously been placed. Before using the serum, pour into some receptacle with a cover, both the receptacle and cover having been sterilized by boiling in water. The glass should be allowed to cool before the serum is taken from it.

The serum is injected directly into the tissue on the inner side of the thigh, or still better, into the loose tissues between the fore legs and the body. The needle is injected into the skin perpendicularly to a depth of from 1/4 to 1 inch, depending upon the size of the hog. Before the injection is made, the skin of the hog over the part selected for injection should be thoroughly cleansed by washing with soap and water. Then the surface must be scrubbed with some reliable disinfectant.

The Dose Must Be Right

Care should be used in estimating the weight of hogs, because the amount of serum required depends upon the size of the hog injected. The dose is commonly given on the package in which the serum comes. Overestimate rather than underestimate and thereby be sure of giving an ample dose of serum. After the injections are made the hogs must be turned into a clean yard, free from mud holes and infectious dust. They should be kept in this inclosure for several days after the injection, so that the wound will heal properly. During the time give them some easily digested food.

Among the precautions recommended for keeping the contagion from a herd are the following:

Do not locate hog lots near a public highway, railroad or a stream.

Do not allow strangers or neighbors to enter your hog lot and do not go into your neighbor's hog lot. If absolutely necessary to pass from one hog lot to another, first clean your shoes carefully and then wash them with a solution of cresol.

Do not put new stock, either hogs or cattle, into a lot with a herd already on the farm. Place newly purchased hogs in separate inclosures, so that they are distinct from the herd already on the farm. Keep them under observation for three weeks. Then they can be put in with the other animals.

Hogs exhibited at fairs should be quarantined for at least three weeks after they return to the farm.

If hog cholera breaks out on a farm separate the sick from the apparently healthy animals. Burn all carcasses of dead animals on the day of their death. Do not leave them unburned, for this will endanger all other farmers in the neighborhood. The prevailing practice of rushing sick hogs to market must be discouraged. Treatment with the serum should be tried instead. If after observing all these precautions hog cholera appears on your farm, notify the State veterinarian or the State agricultural college, secure the serum treatment and go ahead.

CONSERVING PUBLIC HEALTH

Health laws and pure food regulations under the Federal Government are only partially understood by the public in spite of the enormous amount of matter printed bearing on these. Solicitor Francis G. Caffey of the United States Department of Agriculture has summarized in a helpful manner, many of the important features of the so-called Federal health laws. Following is an abstract of the summary of the regulations put into force the last seven years:

The regulations are designed with a two-fold purpose: To enforce honest labelling, and secondarily, to conserve health. The term "food" as used in the Pure Food and Drugs act, includes all articles used for food, drink, confectionery, or condiment by man or animals.

The law against misbranding protects the public by letting it know just what it is buying. It deals with two classes of adulterated foods: one class in which the adulteration is caused by improper labelling; the other class in which adulteration is in the articles themselves, and is incapable of being corrected by proper labelling.

The Department of Agriculture administers the act through its Bureau of Chemistry, which collects samples and conducts investigations. When facts warrant prosecution or seizure, apparent violations of the law are reported to the Department of Justice by the Department of Agriculture.

AVERAGE COMPOSITION OF DIFFERENT VEGETABLES AND THEIR FERTILIZING VALUE

	Pounds of nitrogen in one ton	Pounds of phosphoric acid in one ton	Pounds of potash in one ton	Approximate fertilizing value of one ton
Asparagus.....	6.0	1.6	6.0	\$0 90
Beets.....	5.0	2.0	9.0	95
Cabbages.....	7.6	2.2	9.0	1 20
Carrots.....	3.2	2.0	10.0	80
Cauliflower.....	2.6	3.2	7.2	70
Celery.....	4.8	4.4	15.0	1 25
Cucumbers.....	3.2	2.4	4.8	65
Horseradish roots.....	8.0	2.0	20.0	1 70
Lettuce.....	4.6	1.4	7.4	80
Onions.....	4.0	2.5	3.5	65
Peas.....	23.0	6.0	8.5	2 90
Pumpkins.....	2.2	3.2	2.0	45
Rhubarb.....	2.6	0.4	7.2	55
Spinach.....	10.0	3.2	5.4	1 35
Sweet corn, cobs.....	4.2	1.0	4.4	65
Sweet corn, husks.....	3.6	1.4	4.4	60
Sweet corn, kernels.....	9.2	1.4	4.8	1 15
Sweet corn, stalks.....	5.6	2.8	8.2	1 00
Sweet potatoes.....	4.8	2.0	10.0	95
Tomatoes, fruit.....	3.2	1.0	5.4	60
Tomatoes, vines.....	6.4	1.4	10.0	1 10

The above table shows in a very emphatic manner the great need of nitrogen. It not only enters largely into the composition of vegetables, but also influences the time of maturity. Vegetables which mature quickly usually command the highest prices and are generally the best in quality. Vegetables should grow rapidly and nitrogen has more to do with quick growth than either mineral element.

Preparing Fertilizer

It is a simple matter to determine the required amount of each material with which to make a fertilizer of a given formula. Suppose we desire to mix a fertilizer containing four per cent nitrogen, eight per cent phosphoric acid and ten per cent potash, and that we have on hand nitrate of soda, fourteen per cent rock phosphate and muriate of potash. Nitrate of soda contains about sixteen per cent nitrogen. Every 100 pounds of a ton of fertilizer, must contain four per cent or four pounds of nitrogen. It is seen at once that we must have four times twenty or eighty pounds of nitrogen to meet this formula and as each 100 pounds of nitrate of soda contains sixteen pounds of nitrogen we must have five times this quantity or 500 pounds of nitrate of soda. The formula calls for eight per cent of phosphoric acid, or eight times twenty or 160 pounds for a ton. Dividing 160 by fourteen, the per cent of available phosphoric acid in the phosphate used, we find that 1,143 pounds of phosphate are needed. Two hundred pounds of potash are required. Muriate of potash contains fifty per cent of actual potash so it will take 400 pounds of muriate of potash to supply this element. These amounts make a total of 2,043 pounds. If a low grade fertilizer is mixed from the ingredients named it would be necessary to use a filler as sand, dry earth or other foreign matter to make a full ton. It never pays the gardener to buy or mix low grade fertilizers. It is much better to use a smaller quantity of high grade material and thus save freight and labor in handling useless materials.

The operation of mixing is a very simple matter. The various materials to be used are weighed and placed in separate piles on a smooth floor at convenient distances from a sand screen with a quarter-inch mesh. This screen should be tacked on a frame three feet wide and five feet long and placed at an angle of about forty-five degrees. Two men with flat bottomed shovels throw the materials on to the upper part of the screen, taking alternately from the different piles. Some gardeners prefer to spread the materials in layers in one pile before shoveling. As shoveling proceeds, the lumps roll to the bottom of the screen and are crushed with the bottom of the shovels. From a practical standpoint this method is just as satisfactory as machine mixing in the factory and the actual cost of mixing and re-bagging need not exceed fifty cents per ton. It is not

desirable to mix more than a month in advance of field application or the fertilizer may get lumpy and cause trouble in drilling or distributing.

Fertilizer is most conveniently applied by means of drills. Some of the special drills or distributors may be adjusted to scatter from a few hundred pounds to two tons per acre. Distribution by hand is not a very slow process and is preferred by some of the best growers in the country. Machine application, however, results in more even distribution.

Nitrate of soda also is extensively used as a top dressing after the crops are started. It is unquestionably of great value in furnishing nitrogen in quickly available form and its use is becoming more extensive every year. Amounts varying from seventy-five to two hundred pounds per acre are applied along the rows or about the plants and sometimes it is sown broadcast letting the crystals fall where they will. If the plants are dry there is seldom any injurious effect from burning the foliage. Nitrate is especially valuable when applied after drouth, and before rain. As soon as dissolved the nitrogen becomes available and plants thus treated often take on a darker, richer color within a day's time.

Lime and Liming

The liberal and continued use of acid fertilizers and green manures tends to make soils acid. Where there is marked acidity all of the garden crops fail to thrive. It is important, therefore, to keep the soil pure and sweet and this requires the use of lime.

It is wasteful to plow under so that plowing should precede the spreading of lime. It is also undesirable to mix lime with fertilizers. It is often convenient to apply lime to a fall crop so there will be no interference with the heavy application of fertilizers in the spring. When clover is grown in the rotation it is especially important to apply lime as often as may be needed. Lime is also the best known preventive of club root although it often fails to control this serious disease.

The lime requirement of different soils varies greatly. Half a ton of stone lime per acre is sufficient in some instances. Not less than a ton per acre should probably be applied on most truck farms. If the land is largely devoted to growing cabbage, cauliflower or other crops subject to the attack of club root it is desirable to use it much more freely. Growers on Long Island sometimes apply seventy-five bushels of stone lime per acre.

USEFUL BUGS AND REPTILES

Bees.—Useful pollinizers and almost indispensable to a continuation of a large percentage of plant life.

Dragon Flies.—Feed on a great variety of injurious insects.

Tree Crickets.—Feed on plant lice.

Ground Beetles.—In both larval and adult stages feed on such insects as go underground to pupate.

Lady Bug Beetles.—Feed on plant lice and scale insects, both in larval and adult stages.

Wasps.—Generally beneficial because predatory upon other insects which they use as food for their larvae.

Lace-Wing Flies.—Known as "Aphis Lions" in the larval stage when they feed on plant lice and many soft bodied leaf eating grubs.

Hornets.—Feed almost entirely on insects.

Frogs and Toads.—Feed largely on insects and slugs.

Lizards.—Live on small beetles and other insects.

Garden Spiders.—Feed on large flies, small moths, etc.

AVERAGE PERIODS OF INCUBATION

Chickens.....	20-22 days	Guinea fowls.....	28 days
Geese.....	28-34 days	Pheasants.....	25 days
Ducks.....	28 days	Ostriches.....	40-42 days
Turkeys.....	27-29 days		

AVERAGE PERIODS OF GESTATION

The period of gestation in animals varies considerably, but the following is an average period based on a long series of observations:

Elephant.....	2 years	Goat.....	5 months
Camel.....	11-12 months	Pig.....	3½ months
Ass.....	12 months	Dog.....	9 weeks
Mare.....	11 months	Cat.....	8 weeks
Cow.....	9 months	Guinea pig.....	65 days
Sheep.....	5 months	Rabbit.....	30 days

HOUSEHOLD HINTS

A hot shovel held over varnished furniture will take out biscuit spots.

A little tea put in the starch used for brown linen preserves its color.

Salt water is the best solution known for cleaning willow-ware and matting.

If cheese is wrapped in a cloth moistened with vinegar it will neither dry out nor mold.

To remove stains and discolorations from tinware, try rubbing with a damp cloth dipped in soda.

A solution of potash and water rubbed on birch will give it a finish resembling rosewood when varnished.

The scum which is left by hard water may be removed from sinks, basins and tubs by kerosene or gasoline.

An application of lemon juice and salt in a good sun exposure is an old and effective remedy for fruit and rust stains.

Wet shoes should be stuffed with paper, which will absorb the moisture and prevent the shoes from getting hard.

To make crisp such foods as corn flakes or shredded wheat biscuit when the oven is not hot, heat an iron spider, remove it from the fire, put in the cereal and cover closely.

To prevent the possibility of getting hold of the wrong medicine bottle, especially in the dark, at night, glue a long narrow strip of sand paper on the side of all bottles containing poison. The sensation when handling the bottle will arouse you to the impending danger.

In extracting the juice of lemon or orange, much more juice will be obtained if the fruit is first covered with cold water and allowed to come to a boil before the fruit is cut.

Electric bulbs can be easily mended if only one and sometimes two wires are broken. Attach the bulb to a drop light, turn on the electricity and place the bulb between you and the light. Then gently shake back and forth; the motion will cause the wires to meet and the current will weld the wires together. You will then have a light as good as new.

To prevent a dish from slipping when placed on the ice, put a rubber ring (such as comes on all ordinary fruit jars) underneath it.

FOR CLEANING VARIOUS SUBSTANCES

ALABASTER.—Use strong soap and water.

BLACK CLOTH.—Mix one part of spirits of ammonia with three parts warm water, rub with sponge or dark cloth, clean with water, rub with the nap.

BLACK SILK.—Brush and wipe it thoroughly, lay on table with the side intended to show, up; sponge with hot coffee strained through muslin; when partly dry, iron.

BLOOD STAINS.—To remove blood stains from linen put a drop of water on each stain and cover it with a layer of common laundry starch finely powdered. Then brush off the starch, and the stain will not be seen.

FRUIT SPOTS FROM COTTONS.—Apply cold soap, then touch the spot with a hair pencil or feather dipped in chlorate of soda, then dip immediately in cold water.

FURNITURE FROM FINGERMARKS.—Rub with a soft rag and sweet oil.

GRASS STAINS.—To remove grass stains from white goods, rub the spot with molasses, then wash in warm soap-suds.

GREASE FROM SILK.—Take a lump of magnesia, rub it wet on the spot, let it dry, then brush the powder off.

GLOVES.—A quick way to clean gloves is to take a piece of soft cloth, rub it on the under side of some good soap which has softened somewhat by laying on the dish, and then rub the gloves vigorously with this cloth. The gloves should be worn while being cleaned, and no

water should be used. This same method of cleaning can be applied with good results to baby's white kid shoes, and, with a little water added, white canvas shoes can be thoroughly cleaned. The canvas shoes should be stuffed with paper or cotton so they will keep their shape while drying after being cleaned in this way.

HANDS FROM VEGETABLE STAINS.—Rub with a slice of raw potato.

IRON RUST may be removed from white goods by sour milk.

OIL MARKS ON WALL PAPER.—Apply paste of cold water and pipe clay, leave it on all night, brush off in the morning.

PAINT SPOTS FROM CLOTHING.—Saturate with equal parts turpentine and spirits of ammonia.

SCORCH STAINS FROM WHITE LINEN.—Lay in bright sun.

STAINS, IRON RUST, OR INK FROM VELLUM OR PARCHMENT.—Moisten the spot with a solution of oxalic acid. Absorb same quickly by blotting paper or cloth.

VELVET.—Light colored velvet, corduroy or felt: rub the soiled portion lightly with the cut surface of a day-old loaf of white bread, cutting off the surface as fast as it becomes discolored.

WINDOW GLASS.—Paint can be removed by a strong solution of soda.

ZINC.—Rub with a piece of cotton cloth dipped in kerosene, afterwards with a dry cloth.

HELP IN CASE OF ACCIDENTS

DROWNING. 1—Loosen clothing, if any. 2—Empty lungs of water by laying body on its stomach, and lifting it by the middle so that the head hangs down. Jerk the body a few times. 3—Pull tongue forward, using handkerchief, or pin with string if necessary. 4—Imitate motion of respiration by alternately compressing and expanding the lower ribs, about twenty times a minute. Alternately raising and lowering the arms from the sides up above the head will stimulate the action of the lungs. Let it be done gently but persistently. 5—Apply warmth and friction to extremities. 6—By holding tongue forward, closing the nostrils, and pressing the "Adam's apple" back (so as to close entrance to stomach), direct inflation may be tried. Take a deep breath and breathe it forcibly into the mouth of patient, compress the chest to expell the air, and repeat the operation. 7—DON'T GIVE UP! People have been saved after hours of patient, vigorous effort. 8—When breathing begins, get patient into a warm bed, give warm drinks, or spirits in teaspoonfuls, fresh air and quiet.

BURNS AND SCALDS.—Cover with cooking soda and lay wet cloths over it. Whites of eggs and olive oil. Olive oil or linseed oil, plain, or mixed with chalk or whiting. Sweet or olive oil and lime water.

LIGHTNING.—Dash cold water over a person struck.

SUNSTROKE.—Loosen clothing. Get patient into shade and apply ice-cold water to head. Keep head in elevated position.

MAD DOG OR SNAKE BITE.—Tie cord tight above wound. Suck the wound and cauterize with caustic or white-hot iron at

once, or cut out adjoining parts with a sharp knife. Give stimulants as whiskey, brandy, etc.

STINGS OF VENOMOUS INSECTS, ETC.—Apply weak ammonia, oil, salt water or iodine.

FAINTING.—Place flat on back, allow fresh air and sprinkle with water. Place head lower than rest of body.

CINDERS IN THE EYE.—Roll soft paper up like a lampfinger, and wet the tip to remove, or use a medicine dropper to draw it out. Rub the other eye.

FIRE IN ONE'S CLOTHING.—DON'T RUN—especially not down stairs or out-of-doors. Roll on carpet, or wrap in woolen rug or blanket. Keep the head down, so as not to inhale flame.

FIRE FROM KEROSENE.—DON'T USE WATER, it will spread the flames. Dirt, sand, or flour is the best extinguisher, or smother with woolen rug, table-cloth or carpet.

SUFFOCATION FROM INHALING ILLUMINATING GAS.—Get into the fresh air as soon as possible and lie down. Keep warm. Take 20 drops aromatic spirits of ammonia in a tumbler of water, at frequent intervals; also two to four drops tincture aux vomica every hour or two for five or six hours.

TESTS OF DEATH.—Hold mirror to mouth. If living, moisture will gather. Push pin into flesh. If dead, the hole will remain, if alive it will close up. Place fingers in front of a strong light. If alive, they will appear red; if dead, black or dark. If a person is dead decomposition is almost sure to set in after 72 hours have elapsed. If it does not then there is room for investigation by the physician. Do not permit burial of dead until some certain indication of death is apparent.

UP-TO-DATE METHODS IN CANNING

The old way of making jelly was a pint to a pound, cooked for 20 minutes at a time, with laborious skimming. The same old-time method of preserving and canning meant peeling apples and peaches by hand, pitting cherries with the thumb and first finger unmindful of time and stain. There is a better way than the old-time way which so many housekeepers dreaded.

To make delicious currant jelly, heat the currants very hot with a little water to keep them from burning. Press through a colander, then through a vegetable press. Put as many pints of juice in your kettle as the kettle will hold. Boil steadily for 20 minutes, skimming when necessary. Allow one pound of sugar to each pint of juice. Put the sugar in iron pans on top of brown paper in a hot oven until piping hot. If it seems to burn, put paper on top. Keep the door of the oven closed. The sugar must be so hot that it does not stop the boiling of the juice when it is added at the end of 20 minutes. Let the sirup froth up just once after dissolving.

In jarring or preserving fruit, the flavor is best preserved by boiling water around the jars of fruit rather than boiling the fruit itself. Here is an excellent method of cooking fruit in jars. You need a good size wash boiler to hold eight quart jars and eight tin holders. If you cannot buy these tin holders your tinner will make them. If you have no holders, put clean shingles in the bottom of the boiler on which to stand the jars. Select the fruit carefully, and pick it over to see that there are no spotted bits included. It should be prepared as for ordinary canning, but instead of being put in a kettle, put directly into a quart jar. Shake down once or twice to pack it solidly as the fruit shrinks considerable after boiling. The table below gives the required amount of sugar. Have plenty of boiling water on the stove. Put the sugar in a small pitcher or pint measure and cover with boiling water. Do not use too much water at first. Pour the sirup over the fruit and add enough water to fill the jars. Put on the rubber and screw the covers loosely. Put each jar in a stand and set the eight at once in a wash boiler filled to within an inch of the covers of the

jars with lukewarm water. After the water comes to the boiling point, cook the length of time required as shown by the table. Remove from the fire and unscrew covers for a few minutes to allow the steam to escape. Rescrew tightly and turn each jar upside down on the table to see that they are entirely air-tight.

In canning tomatoes, no water is used, merely a teaspoonful of salt to each jar. Pick the tomatoes early in the season when they are not watery. Boiling water should be poured over them to make them skin easily. Fill jars very full. Wrap each jar in newspaper and keep in a dark, cool place.

—J. H. C. Almanac.

TIME FOR BOILING FRUITS

Fruits	Time for Boiling	Amount of Sugar to Quart
Cherries (sweet).....	5 min.	6 ounces
Cherries (sour).....	5 min.	8 ounces
Raspberries.....	6 min.	6 ounces
Blackberries.....	8 min.	8 ounces
Strawberries.....	8 min.	8 ounces
Plums.....	10 min.	8 ounces
Green gages.....	10 min.	8 ounces
Huckleberries.....	5 min.	4 ounces
Small sour pears (whole).....	30 min.	8 ounces
Bartlett pears (halved).....	20 min.	6 ounces
Peaches (halved or whole).....	8 min.	8 ounces
Pineapple (sliced).....	15 min.	10 ounces
Crab apple.....	25 min.	8 ounces
Sour apples (quartered).....	10 min.	8 ounces
Currants.....	6 min.	10 ounces
Wild grapes.....	10 min.	8 ounces
Gooseberries.....	8 min.	8 ounces
Quinces (sliced).....	35 min.	10 ounces
Tomatoes.....	45 min.	Teaspoonful of salt.

COOKING TIME TABLE

FOR BAKING

MEATS	Time in oven
Mutton, leg, per lb.....	10 to 15 min.
Beef ribs, per lb.....	8 to 15 min.
Round of beef, per lb.....	12 to 15 min.
Lamb, well done, per lb.....	15 min.
Pork, well done, per lb.....	20 min.
Veal, well done, per lb.....	18 to 20 min.
Mutton, shoulder, stuffed, per lb.....	15 min.
Venison, rare, per lb.....	10 min.
Goose, per lb.....	18 min.
Chicken, per lb.....	15 min.
Turkey.....	1½ to 3 hrs.
Birds, small (hot oven).....	15 to 20 min.
Ducks, wild (very hot oven).....	15 min.
Ducks, tame.....	45 min.
Partridge.....	35 to 40 min.

FISH

Shad.....	15 to 25 min.
Trout.....	15 to 25 min.
Bluefish.....	15 to 25 min.
Small fish.....	5 to 10 min.

MISCELLANEOUS

Bread.....	1 hr.
Custard (very slow oven).....	1 hr.
Biscuits.....	20 min.
Cakes.....	20 to 45 min.

FOR BROILING

MEATS	
Mutton chops.....	8 to 10 min.
Grouse.....	15 min.
Quail.....	8 to 10 min.
Steak, 1½ inches thick.....	10 to 15 min.
Steak, 1 inch thick.....	8 to 10 min.
Spring chicken.....	20 min.
Squab.....	10 to 15 min.

FOR BOILING

MEATS	
Mutton, per lb.....	15 min.
Ham, per lb.....	20 min.
Chicken, per lb.....	15 min.
Turkey, per lb.....	15 min.
Corned beef, per lb.....	30 min.
Fowl, per lb.....	20 to 30 min.
Tripe, per lb.....	3 to 5 hrs.

FISH

Halibut, per lb.....	15 min.
Bluefish, per lb.....	10 min.
Bass, per lb.....	10 min.
Codfish, per lb.....	6 min.
Haddock, per lb.....	6 min.
Salmon, per lb.....	10 to 15 min.
Small fish, per lb.....	6 min.
Lobster.....	30 to 40 min.

VEGETABLES

Peas.....	15 to 20 min.
Spinach.....	15 to 20 min.
Lima beans.....	30 to 40 min.
String beans.....	20 to 30 min.
Potatoes.....	20 to 30 min.
Asparagus.....	20 to 25 min.
Brussels sprouts.....	10 to 15 min.
Green corn.....	20 to 25 min.
Onions.....	30 to 40 min.
Parsnips.....	30 to 40 min.
Rice.....	15 to 20 min.
Turnips.....	30 min.
Beets.....	30 min. or more
Cauliflower.....	20 min.
Cabbage.....	20 min.
Macaroni.....	20 min.

DIGESTION OF VARIOUS FOODS

FRUITS	H. M.		H. M.		H. M.		H. M.
Apples.....	2 30	Periwinkles.....	3 30	Mutton, roasted.....	3 15	Turnips.....	4 0
Bananas.....	1 45	Sardines.....	3 10	Pork, boiled.....	4 15	Turnip tops.....	3 0
Blackberries.....	2 35	Salmon.....	4 0	" roasted.....	5 20	Watercress.....	1 30
Cherries.....	2 0	Shrimps.....	3 45	Yeast.....	4 0	MISCELLANEOUS	
Currants.....	3 30	Soles.....	2 5	Venison.....	1 30	Bacon and Ham.....	4 0
Figs and Grapes.....	3 0	Sprats.....	3 0			Bread, new.....	4 30
Fig Seeds.....	Never	Turbot.....	2 20			" stale.....	3 30
Gooseberries.....	2 30	Whelks.....	4 30	VEGETABLES		Butter.....	3 0
Melons.....	3 0	Whiting.....	3 0	Asparagus.....	1 30	Cheese.....	3 30
Nuts.....	4 0			Beans.....	2 30	Crust (Pie).....	3 45
Oranges.....	2 45	FOWL		" French.....	2 0	Eggs, boiled lightly.....	3 0
Pears, ripe.....	2 0	Duck.....	4 0	Brussels Sprouts.....	1 45	" hard.....	4 30
Pineapple.....	2 35	Fowls, boiled.....	3 0	Cabbage.....	4 30	" poached.....	3 5
Plums.....	3 40	" roasted.....	3 30	Carrots.....	4 15	" fried.....	3 15
Prunes.....	2 0	Goose.....	4 5	Cauliflower.....	2 0	" raw.....	2 0
Raisins.....	4 5	Partridges.....	2 25	Celery, uncooked.....	3 15	Jams and Jellies.....	3 0
Raspberries.....	3 45	Pigeons.....	3 10	Cucumber.....	4 45	Macaroni.....	3 0
Strawberries.....	2 45	Pheasants.....	3 5	Endive.....	2 45	Milk, raw.....	2 30
		Turkey.....	4 25	Horseradish.....	4 0	" boiled.....	2 0
				Leeks.....	1 30	" Swiss cond.....	2 0
FISH		MEAT		Lettuce.....	3 0	Oatmeal.....	3 5
Brill.....	3 20	Beef, boiled & salted.....	4 15	Mushrooms.....	1 20	Pearl Barley.....	2 0
Cod Fish.....	3 30	Beef, roasted.....	3 20	Mustard and Cress.....	2 0	Pepper.....	3 45
Crabs.....	4 0	Calves' Head.....	3 0	Onions.....	2 5	Pickles.....	4 0
Haddocks.....	4 0	" Feet, boiled.....	2 0	Parsnips.....	3 30	Sausages, beef.....	3 5
Herrings.....	3 5	Hearts.....	4 0	Peas, Green.....	2 35	" pork.....	4 0
Lobsters.....	4 0	Kidneys.....	3 0	Potatoes, boiled.....	3 30	Suet.....	5 30
Mackerel.....	4 0	Lamb.....	2 20	Radishes.....	4 0	Tea.....	4 0
Mussels.....	3 30	Liver.....	3 20	Rice, boiled.....	1 30	Tongue.....	3 35
Oysters, raw.....	2 35	Mutton, boiled.....	3 0	Savoys.....	3 30	Vinegar.....	3 25
" stewed.....	2 15			Tomatoes.....	2 5		

ORIGIN OF COMMON VEGETABLES AND FRUITS

Spinach is a Persian plant.
 Horseradish is a native of England.
 Filberts originally came from Greece.
 The Turnip originally came from Rome.
 The Peach originally came from Persia.
 Sage is a native of the South of Europe.
 Sweet Marjoram is a native of Portugal.
 The Bean is said to be a native of Egypt.
 The Pea is a native of the south of Europe.
 Ginger is a native of the East and West Indies.
 Coriander Seed came originally from the East.
 Apricots are indigenous to the Plains of America.
 The Cucumber was originally a tropical vegetable.
 Capers originally grew wild in Greece and Northern Africa.
 Pears were originally brought from the East by the Romans.
 The Clove is a native of the Malacca Islands.
 Cherries were known in Asia as far back as the 17th century.

POISONS AND THEIR ANTIDOTES

ACIDS: Muratic, Oxalic, Acetic, Sulphuric, (Oil of Vitriol), Nitric (Aqua Fortis)—Soap suds, magnesia, lime-water.

ALKALIES: Potash, Lye, Hartshorn, Ammonia—Vinegar or lemon juice in water.

ARSENIC, Verdigris, Rat Poison, Paris Green—Milk, raw eggs, sweet oil, lime-water, flour and water.

CARBONATE OF SODA, Copperas, Cobalt—Soap suds and mucilaginous drinks.

CARBOLIC ACID—Flour and water, mucilaginous drinks.
 BUG POISON, Lead, Saltpetre, Corrosive Sublimite, Sugar of Lead, Blue Vitriol—Whites of eggs or milk in large doses.

CHLOROFORM, Chloral, Ether—Dash cold water on head and chest. Artificial respiration.

HEMLOCK, Laurel, Aconite, Belladonna, and Foxglove—After emetic give tannin and stimulants.

IODINE, Antimony, Tartar Emetic—Starch and water, astringent infusions, strong tea.

MERCURY and its salts—Whites of eggs, milk, mucilages.

OPUM, Morphine, Laudanum, Soothing Powders or Syrups, Paregoric—Strong coffee, hot bath. Keep awake and moving at any cost.

POISON IVY OR OAK—There are three generally effective remedies for poison ivy or mercury. One is to apply hot water to the poisoned surface. Another is peroxide of hydrogen. The third is to apply a solution of sugar of lead, about 40 grains to a pound of water. Two other remedies

Asparagus was originally a wild sea coast plant and is a native of Great Britain.

The Tomato is a native of South America and it takes its name from a Portuguese word.

Parsley is said to have come from Egypt, and mythology tells us that it was used to adorn the head of Hercules.

Apples were originally brought from the East by the Romans.

The Crab-apple is indigenous to Great Britain.

The Onion was almost an object of worship with the Egyptians 2,000 years before the Christian era. It first came from India.

The Cantaloupe is a native of America and is so called from the name of a place near Rome where it was first cultivated in Europe.

Lemons were used by the Romans to keep moths from their garments, and in the time of Pliny they were considered an excellent poison. They are native to Asia.

that are more or less effective are baking soda and dry starch.

PRUSSIC ACID—Ammonia in water. Dash water in face.

STRYCHNINE—First give an emetic, and then large dose of bromide of sodium (60 grains in solution). Repeat every hour until three or four doses have been taken.

TOADSTOOL POISONING—Give emetics promptly, then castor oil and stimulants. Apply heat.

SUN SPOTS

To be visible with a telescope a sun spot must be at least 25,000 miles in diameter, and probably represents a more or less circular opening in the luminous clouds surrounding the sun itself not less than 300,000 square miles in area. Inside this temporary crater is a tremendous sea of liquid fire, the molten waves of which are hundreds of miles in height. Father Secchi, an Italian astronomer, who devoted himself to the observation of the sun, carefully measured many of the waves generated during a "spot disturbance," and found some of them attained the incredible height of over 100,000 miles, and the rate of their movement he estimated at 150 miles a second! The mightiest terrestrial volcanic disturbance is as nothing to these solar eruptions, which often last—vast seething whirlpools of fire—for several weeks before the area affected resumes its normal appearance. Sun spots are most abundant at intervals of about eleven years. They usually lie along zones not far N. and S. of the Equator, and transit the solar disc in about 13½ days.

MEDICINAL HERBS

(Abstracted from U. S. Bulletin No. 219)

SWEET FERN.—Has fragrant odor and resembles ordinary fern. Tonic and astringent properties; domestic remedies in diarrheal complaints.

LIVERLEAF.—Also known as the hepatica. Grows in the woods, blossoming about March. The leaves have tonic properties. Said to be useful in affections of the liver.

CELANDINE.—Unpleasant acid odor when bruised. The dry leaf is odorless; cathartic and diuretic properties. Promotes perspiration; used as an expectorant; juice has been employed externally for warts and corns.

WITCH-HAZEL.—Blossoms late in Fall. Leaves are from 3 to 5 inches long. Soothing properties; employed for use of inflammatory conditions.

AMERICAN SENNA.—Perennial herb; its round grooved stems reaching about 5 feet. The leaves are 6 to 8 inches long and have from 12 to 20 leaflets. Cathartic properties similar to the well-known senna of commerce imported.

EVENING PRIMROSE.—Grows in nearly all parts of the country; blooms at night; has mucilaginous taste; used for coughs and asthmatic troubles and an ointment made therefrom applied in skin affections. Entire plant used.

YERBA SANTA.—Expectorant properties employed for throat and bronchial troubles. Also used as a bitter tonic. Has a balsamic and sweetish taste.

PRISSEWA.—Bitter astringent taste; employed in rheumatic and kidney affections slightly tonic; externally applied to ulcers.

MOUNTAIN LAUREL.—Found in rocky and sandy soil in North-eastern states. Used for its astringent properties; poisonous to sheep and calves.

GRAVEL PLANT or TRAILING ARBUTUS.—Spicy fragrance; leaves measure from one to three inches in length, possess astringent and diuretic properties; collected when in flower.

WINTER GREEN.—Perennial plant; frequents sandy soil in cool damp woods; stimulant antiseptic, and diuretic properties; chief use as flavoring extract.

BEARBERRY.—Low, much-branched shrub growing in sandy or rocky soil from Middle Atlantic States to Labrador. Leaves about one inch in length. Collected in Autumn. Act on the kidney and liver and have astringent and tonic effects.

BUCK BEAN.—A marsh herb growing as far south as Pennsylvania; employed in dyspepsia, fevers, rheumatic and skin affections, also as a remedy against worms. Large doses sometimes have an emetic action.

SKULL CAP.—Principally used as a tonic and to a limited extent for allaying nervous irritation of various kinds.

HOREHOUND.—Grows in sandy or stony soil; a domestic remedy for colds; also used in dyspepsia and for expelling worms. Leaves and tops are only parts of the plant used.

CATNIP.—A perennial growing in dry soil 2 or 3 feet in height. Catnip tea is a mild stimulant and tonic and acts as an emmenagogue. It also has a quieting effect on the nervous system. Does not grow south of North Carolina.

MOTHEWORT.—A stimulant, slightly tonic properties used also to promote perspiration.

PENNYROYAL.—Strong mintlike odor and pungent taste; used as an aromatic stimulant, carminative and emmenagogue. Odor repulsive to insects and is much used to ward off mosquitoes. Belongs to the mint family.

BUGLEWEED.—Bitter, disagreeable taste; it has sedative, tonic and astringent properties. Grows in damp places in eastern United States. Cultivated in New York and Michigan.

PEPPERMINT.—Well-known remedy for stomach and intestinal troubles.

SPEARMINT.—Plant much resembles peppermint. Uses similar to peppermint, although action is milder. The oil is obtained from the fresh or partly dried leaves and the flowering tops.

JIMSON WEED.—Has narcotic odor and nauseous taste; poisonous, antispasmodic, anodyne and diuretic properties. In asthma employed in form of cigarettes, the fumes being inhaled.

BALMONEY.—Bitter taste, no odor, used as a tonic for its cathartic properties and for expelling worms.

COMMON SPEEDWELL.—Bitter taste; used in asthmatic troubles, also for its iterative and diuretic properties.

FOXGLOVE.—Peculiar odor, nauseous taste; preparations made from it are of great value in affections of the heart but are poisonous and only used on advice of physician.

SQUAW VINE.—Tonic, astringent and diuretic qualities.

LOBELIA.—Poisonous; has expectorant properties, acts upon nervous system and bowels, causes vomiting.

BONESET.—Popular remedy in fever or ague; employed in colds, dyspepsia and jaundice; in large doses acts as an emetic and cathartic.

GUM PLANT.—Odor is balsamic, taste resinous and sharply aromatic; used as stomachic tonic and externally in cases of poison ivy poisoning.

CANADA FLEABANE.—His faint, agreeable odor, astringent taste; used for controlling hemorrhages and bleeding of wounds; also employed in dropsy and diarrhea.

YARROW.—Aromatic odor much like chamomile, sharp bitter taste; used as a stimulant tonic, for its action upon the bladder and for checking excessive discharges.

TANSY.—Poisonous and sometimes produces fatal results; used as a stimulant tonic and emmenagogue, also as a remedy for worms.

WORMWOOD.—Exceedingly bitter taste; used as a tonic, stomachic, stimulant against fevers and for expelling worms. By distillation an oil is obtained which is the principal ingredient of absinthe.

COLTSFOOT.—Popular remedy in coughs and affections of chest, having a soothing effect on irritated mucous membranes.

FIREWEED.—Oil by distillation is used as astringent tonic and for its alternative properties; disagreeable taste and odor.

BLESSED THISTLE.—Taste very bitter and salty and somewhat acid; used principally as a bitter tonic.

MEANING OF COMMON FLOWERS

Amaryllis, splendid beauty.
Apple Blossom, preference.
Azalea, romance.
Bachelor's Button, hope in love.
Balm, sympathy.
Balsam, impatience.
Bell-flower, gratitude.
Box, constancy.
Buttercup, riches.
Calla Lily, feminine beauty.
Candy Tuft, indifference.
Canterbury Bell, gratitude.
Cape Jessamine, ecstasy.
Carnation, yellow, disdain.
China Aster, will think of it.
China Pink, aversion.
Chrysanthemum, rose, I love.
Clematis, artifice.
Clover, red, industry.
Cockscomb, foppery.
Columbine, folly.
Coriander, hidden merit.
Cowslip, you're my divinity.
Crocus, cheerfulness.
Daffodil, chivalry.

Dahlia, thine forever.
Daisy, I will think of it.
Dandelion, coquetry.
Dogwood, I am indifferent.
Elder Flower, compassion.
Everlasting, remembering.
Forget-me-not, true love.
Foxglove, insincerity.
Four o'Clocks, humility.
Fuchsia, ambition of love.
Geranium, joy, next dance.
Geranium, rose, preference.
Geranium, silver, recall.
Golden Rod, encouragement.
Harebell, grief.
Hawthorne, hope.
Heliotrope, I love you.
Holly, foresight.
Hollyhock, ambition.
Honeysuckle, bond of love.
Horsechestnut, luxury.
Hyacinth, jealousy.
Hyacinth, blue, constancy.
Hydrangea, heartlessness.
Iris, message.

Ivy, matrimony.
Jonquil, return my love.
Lady's Slipper, beauty.
Larkspur, fickleness.
Laurel, glory.
Lavender, distrust.
Lilac, first emotion of love.
Lily, purity, modesty.
Lily of the Valley, happiness.
Lily, water, eloquence.
Lily, yellow, falsehood.
Linden, conjugal love.
Locust, utmost affection.
Magnolia, peerless, rude.
Marigold, cruelty.
Marjoram, blushes.
Meadow Sweet, uselessness.
Mignonette, qualities.
Moss, maternal love.
Motherwort, secret love.
Myrtle, love.
Narcissus, egotism.
Orange Blossom, marriage.
Primrose, early youth.
Rose, bridal, happy love.

Rose, moss, superior merit.
Rose, sweet briar, sympathy.
Rose, tea, always lovely.
Rose, white, worthy of you.
Rose, wild, simplicity.
Rosebud, young girl.
Rue, disdain.
Snapdragon, presumption.
Snowball, thoughts of heaven.
Snowdrop, consolation.
Spear-mint, warm feeling.
Star of Bethlehem, reconciliation.
Sunflower, pride.
Sweet-William, finesse.
Syringa, memory.
Thistle, austerity.
Trumpet flower, separation.
Tuberose, dangerous pleasure.
Tulip, declaration of love.
Tulip Tree, rural happiness.
Tulip, yellow, hopeless love.
Verbena, sensibility.
Violet, blue, love.
Violet, white, modesty.
Zinnia, absent friends.

AGRICULTURAL COLLEGES IN THE UNITED STATES

State or Territory	Name of Institution	Location
Alabama	Alabama Polytechnic Institute.	Auburn
	Agricultural School of the Tuskegee Normal and Industrial Institute.	Tuskegee Institute
	Agricultural and Mechanical College for Negroes.	Normal
Arizona	College of Agriculture of the University of Arizona.	Tucson
Arkansas	College of Agriculture of the University of Arkansas.	Fayetteville
	Branch Normal College.	Pine Bluff
California	College of Agriculture of the University of California.	Berkeley
Colorado	The State Agricultural College of Colorado.	Fort Collins
Connecticut	Connecticut Agricultural College.	Storrs
Delaware	Delaware College.	Newark
	State College for Colored Students.	Dover
Florida	College of Agriculture of the University of Florida.	Gainesville
	Florida Agricultural and Mechanical College for Negroes.	Tallahassee
Georgia	Georgia State College of Agriculture.	Athens
	Georgia State Industrial College.	Savannah
Hawaii	College of Hawaii.	Honolulu
Idaho	College of Agriculture of the University of Idaho.	Moscow
Illinois	College of Agriculture of the University of Illinois.	Urbana
Indiana	School of Agriculture of Purdue University.	Lafayette
Iowa	Iowa State College of Agriculture and Mechanic Arts.	Ames
Kansas	Kansas State Agricultural College.	Manhattan
Kentucky	The College of Agriculture of the State University.	Lexington
	The Kentucky Normal and Industrial Institute for Colored Persons.	Frankfort
Louisiana	Louisiana State University and Agricultural and Mechanical College.	Baton Rouge
	Southern University and Agricultural and Mechanical College of the State of Louisiana.	Scot. Hts., Baton Rouge
Maine	College of Agriculture of the University of Maine.	Orono
Maryland	Maryland Agricultural College.	College Park
	Princess Anne Academy, Eastern Branch of the Maryland Agricultural College.	Princess Anne
Massachusetts	Massachusetts Agricultural College.	Amherst
	Massachusetts Institute of Technology.	Boston
Michigan	Michigan Agricultural College.	East Lansing
Minnesota	College of Agriculture of the University of Minnesota.	University Farm, St. Paul
Mississippi	Mississippi Agricultural and Mechanical College.	Agricultural College
	Alcorn Agricultural and Mechanical College.	Alcorn
Missouri	College of Agriculture of the University of Missouri.	Columbia
	School of Mines and Metallurgy of the University of Missouri.	Rolla
	Lincoln Institute.	Jefferson City
Montana	Montana State College of Agriculture and Mechanic Arts.	Bozeman
Nebraska	College of Agriculture of the University of Nebraska.	Lincoln
Nevada	College of Agriculture of the University of Nevada.	Reno
New Hampshire	New Hampshire College of Agriculture and the Mechanic Arts.	Durham
New Jersey	Rutgers College (the New Jersey State College for the Benefit of Agriculture and the Mechanic Arts).	New Brunswick
New Mexico	New Mexico College of Agriculture and Mechanic Arts.	State College
New York	New York State College of Agriculture.	Ithaca
North Carolina	The North Carolina College of Agriculture and Mechanic Arts.	West Raleigh
	The Agricultural and Mechanical College for the Colored Race.	Greensboro
North Dakota	North Dakota Agricultural College.	Agricultural College
Ohio	College of Agriculture of Ohio State University.	Columbus
Oklahoma	Oklahoma Agricultural and Mechanical College.	Stillwater
	Agricultural and Normal University.	Langston
Oregon	Oregon State Agricultural College.	Corvallis
Pennsylvania	The School of Agriculture of the Pennsylvania State College.	State College
Porto Rico	College of Agriculture and Mechanic Arts of the University of Porto Rico.	Mayaguez
Rhode Island	Rhode Island State College.	Kingston
South Carolina	The Clemson Agricultural College of South Carolina.	Clemson College
	The Colored Normal, Industrial, Agricultural, and Mechanical College of South Carolina.	Orangeburg
South Dakota	South Dakota State College of Agriculture and Mechanic Arts.	Brookings
Tennessee	College of Agriculture, University of Tennessee.	Knoxville
Texas	Agricultural and Mechanical College of Texas.	College Station
	Prairie View State Normal and Industrial College.	Prairie View
Utah	The Agricultural College of Utah.	Logan
Vermont	College of Agriculture of the University of Vermont.	Burlington
Virginia	The Virginia Agricultural and Mechanical College and Polytechnic Institute.	Blacksburg
	The Hampton Normal and Agricultural Institute.	Hampton
Washington	State College of Washington.	Pullman
West Virginia	College of Agriculture of West Virginia University.	Morgantown
	The West Virginia Colored Institute.	Institute
Wisconsin	College of Agriculture of the University of Wisconsin.	Madison
Wyoming	College of Agriculture, University of Wyoming.	Laramie

STATE OFFICIALS IN CHARGE OF AGRICULTURE

State	Official	Location	State	Official	Location
Alabama	Commissioner of Agriculture	Montgomery	Montana	Commissioner of Agriculture	Helena
Alaska	Director of Experiment Stations	Sitka	Nebraska	Secretary of State Board of Agri.	Lincoln
Arizona	Director of Experiment Station	Tucson	Nevada	Secretary of State Board of Agri.	Carson City
Arkansas	Commissioner of Agriculture	Little Rock	New Hamp.	Secretary of State Board of Agri.	Concord
California	Secretary of State Board of Agri.	Sacramento	N. J.	Secretary of State Board of Agri.	Trenton
Colorado	Secretary of State Board of Agri.	Fort Collins	New M.	Director of Experiment Station	Agri. College
Conn.	Secretary of State Board of Agri.	Hartford	New York	Commissioner of Agriculture	Albany
Delaware	Secretary of State Board of Agri.	Dover	N. Car.	Commissioner of Agriculture	Raleigh
Florida	Commissioner of Agriculture	Tallahassee	N. Dak.	Commissioner of Agriculture	Bismarck
Georgia	Commissioner of Agriculture	Atlanta	Ohio	Secretary of State Board of Agri.	Columbus
Guam	Director of Experiment Station	Guam	Oklahoma	President of State Board of Agri.	Oklahoma
Hawaii	Sec. of Territorial Board of Agri.	Honolulu	Oregon	Secretary of State Board of Agri.	Salem
Idaho	Comm. of Immigration, Labor, and Statistics	Boise	Penn.	Secretary of Agriculture	Harrisburg
Illinois	Secretary of State Board of Agri.	Springfield	Phil. Is.	Director of Agriculture	Manila
Indiana	Secretary of State Board of Agri.	Indianapolis	Porto Rico	Director of Experiment Station	Mayaguez
Iowa	Secretary of State Board of Agri.	Des Moines	R. I.	Secretary of State Board of Agri.	Providence
Kansas	Secretary of State Board of Agri.	Topeka	S. Car.	Commissioner of Agriculture	Columbia
Kentucky	Commissioner of Agriculture	Frankfort	S. Dak.	Secretary of State Board of Agri.	Huron
Louisiana	Commissioner of Agriculture	Baton Rouge	Tennessee	Commissioner of Agriculture	Nashville
Maine	Commissioner of Agriculture	Augusta	Texas	Commissioner of Agriculture	Austin
Maryland	Director of Experiment Station	College Park	Utah	Director of Experiment Station	Logan
Mass.	Secretary of State Board of Agri.	Boston	Vermont	Commissioner of Agriculture	St. Albans
Michigan	Secretary of State Board of Agri.	East Lansing	Virginia	Commissioner of Agriculture	Richmond
Minnesota	Secretary of State Agricultural Soc.	St. Paul	Wash.	Commissioner of Agriculture	Olympia
Miss.	Commissioner of Agriculture	Jackson	W. Va.	Secretary of State Board of Agri.	Charleston
Missouri	Secretary of State Board of Agri.	Columbia	Wisconsin	Secretary of State Board of Agri.	Madison
			Wyoming	Director of Experiment Station	Laramie

AGRICULTURAL EXPERIMENT STATIONS OF THE UNITED STATES

Alabama (College), Auburn.
 Alabama (Canebrake), Uniontown.
 Alabama (Tuskegee), Tuskegee Institute.
 Alaska, Sitka (Rampart, Kodiak, and Fairbanks).
 Arizona, Tucson.
 Arkansas, Fayetteville.
 California, Berkeley.
 Colorado, Fort Collins.
 Connecticut (State), New Haven.
 Connecticut (Storrs), Storrs.
 Delaware, Newark.
 Florida, Gainesville.
 Georgia, Experiment.
 * Guam.
 Hawaii (Federal), Honolulu.
 Hawaii (Sugar Planters'), Honolulu.
 Idaho, Moscow.
 Illinois, Urbana.
 Indiana, Lafayette.
 Iowa, Ames.
 Kansas, Manhattan.
 Kentucky, Lexington.
 Louisiana (Sugar), New Orleans.
 Louisiana (State), Baton Rouge.
 Louisiana (North), Calhoun.
 Louisiana (Rice), Crowley.
 Maine, Orono.
 Maryland, College Park.
 Massachusetts, Amherst.
 Michigan, East Lansing.
 Minnesota, University Farm, St. Paul.
 Mississippi, Agricultural College.
 Missouri (College), Columbia.
 Missouri (Fruit), Mountain Grove.
 Montana, Bozeman.
 Nebraska, Lincoln.
 Nevada, Reno.

* Address: Island of Guam, via San Francisco.

New Hampshire, Durham.
 New Jersey (State), New Brunswick.
 New Jersey (College), New Brunswick.
 New Mexico, State College.
 New York (State), Geneva.
 New York (Cornell), Ithaca.
 North Carolina, Raleigh and West Raleigh.
 North Dakota, Agricultural College.
 Ohio, Wooster.
 Oklahoma, Stillwater.
 Oregon, Corvallis.
 Pennsylvania, State College.
 Pennsylvania (Institute of Animal Nutrition), State College.
 Porto Rico (Federal), Mayaguez.
 Porto Rico (Insular), Rio Piedras.
 Rhode Island, Kingston.
 South Carolina, Clemson College.
 South Dakota, Brookings.
 Tennessee, Knoxville.
 Texas, College Station.
 Utah, Logan.
 Vermont, Burlington.
 Virginia (College), Blacksburg.
 Virginia (Truck), Norfolk.
 Washington, Pullman.
 West Virginia, Morgantown.
 Wisconsin, Madison.
 Wyoming, Laramie.

Java is the only one of the Dutch East Indies that has been fully opened and developed. Sumatra is being gradually exploited, and the unfriendly tribes brought under control, but Borneo and New Guinea—part of each of which is owned by the Dutch—and minor islands are as yet but little developed. The total area of the Dutch possessions in the Malay Archipelago is 739,000 square miles, while the population is 37,000,000.

WHITE HOUSE RULES

The following rules have been arranged for the conduct of business at the Executive Offices:

The Cabinet will meet on Tuesdays and Fridays from 11 A. M. until 1 P. M.

Senators and Representatives having business to transact will be received from 10.30 A. M. to 12 M., excepting on Cabinet days. In view of the pressure of business at the Executive Offices during the Congressional session it would greatly

facilitate matters if Senators and Members could telephone for an appointment before calling, as many will have first made appointments in this way, and those calling without appointments are therefore necessarily delayed in seeing the President.

The East Room will be open daily, Sundays excepted, for the inspection of visitors, between the hours of 10 A. M. and 2 P. M.

JOSEPH P. TUMULTY, *Secretary to the President.*

MORTGAGED FARMS

Census figures show a steady decline in the number of farms and farm homes owned free and a corresponding increase in the number of those mortgaged. Between 1890 and 1910 the percentage of such property mortgaged has risen from 28.2 to 33.6. In 1900 it was 31.1 per cent.

Analysis of the tables indicates that the movement is not evenly distributed throughout the United States. One section, the West North Central, shows an opposite movement, but on the whole mortgaged indebtedness is growing much faster than it should.

While the percentage of owners carrying mortgages has increased from 28.2 per cent in 1890 to 33.6 in 1910, the percentage of "owners free" in the continental United States has diminished from 71.8 per cent twenty years ago, to 66.4 per cent in 1910. Here is the table on which this is based:

TOTALS FOR THREE DECADES

Year	Free	Owners mortgaged	Per cent. mortgaged
1890.....	2,255,789	886,957	28.2
1900.....	2,511,101	1,127,302	31.1
1910.....	2,621,073	1,327,649	33.6

PER CENT OF TOTAL

	—Owners free—			—Owners mtgd.—		
	1910	1900	1890	1910	1900	1890
Continental U. S.....	66.4	68.9	71.8	33.6	31.1	28.2
New England.....	65.1	65.9	71.7	34.9	34.1	28.3
Maine.....	73.4	73.3	77.9	26.6	26.7	22.1
New Hampshire.....	74.4	74.5	78.2	25.6	25.5	21.8
Vermont.....	53.1	53.1	55.7	46.9	46.9	44.3
Massachusetts.....	59.1	61.4	69.5	40.9	38.6	30.5
Rhode Island.....	70.4	72.9	80.9	29.6	27.1	19.1
Connecticut.....	56.8	59.3	68.9	43.2	40.7	31.1
Middle Atlantic.....	61.7	59.7	63.0	38.3	40.3	37.0
New York.....	56.3	53.7	55.8	43.7	46.3	44.2
New Jersey.....	50.4	48.1	51.1	49.6	51.9	48.9
Pennsylvania.....	68.9	67.7	72.6	31.1	32.3	27.4
East N. Central.....	59.1	60.6	62.4	40.9	39.4	37.6
Ohio.....	71.1	70.2	71.1	28.9	29.8	28.9
Indiana.....	61.2	63.5	66.9	38.8	36.5	33.1
Illinois.....	60.8	60.7	63.3	39.2	39.3	36.7
Michigan.....	51.8	51.7	50.6	48.2	48.3	49.4
Wisconsin.....	48.6	54.2	57.1	51.4	45.8	42.9
West N. Central.....	53.8	55.7	52.0	46.1	44.3	48.0

	—Owners free—			—Owners mtgd.—		
	1910	1900	1890	1910	1900	1890
Minnesota.....	53.7	55.2	53.6	46.3	44.8	46.4
Iowa.....	48.2	47.0	46.7	51.8	53.0	53.3
Missouri.....	53.7	57.6	63.6	46.3	42.4	36.4
North Dakota.....	49.1	68.6	51.3	50.9	31.4	48.7
South Dakota.....	61.8	63.3	47.6	38.2	36.7	52.4
Nebraska.....	60.6	54.6	48.0	39.4	45.4	52.0
Kansas.....	55.2	58.2	44.5	44.8	41.8	55.5
South Atlantic.....	81.2	83.2	92.6	18.8	16.8	7.4
Delaware.....	62.8	63.5	70.6	37.2	36.5	29.4
Maryland.....	63.5	63.2	70.0	36.5	36.8	30.0
District of Columbia.....	81.6	81.1	95.9	18.4	18.9	4.1
Virginia.....	84.0	85.3	96.8	16.0	14.7	3.2
West Virginia.....	87.4	85.9	87.0	12.6	14.1	13.0
North Carolina.....	81.5	84.2	95.1	18.5	15.8	4.9
South Carolina.....	76.0	79.4	92.0	24.0	20.6	8.0
Georgia.....	81.0	85.3	96.6	19.0	14.7	3.4
Florida.....	85.2	89.7	97.1	14.8	10.3	2.9
East S. Central.....	77.3	83.0	95.5	22.7	17.0	4.5
Kentucky.....	80.4	84.8	95.9	19.6	15.2	4.1
Tennessee.....	83.1	88.5	96.8	16.9	11.5	3.2
Alabama.....	73.1	80.8	95.6	26.9	19.2	4.4
Mississippi.....	61.7	72.9	92.3	32.9	27.1	7.7
West S. Central.....	69.4	81.8	95.2	30.6	18.2	4.8
Arkansas.....	78.6	85.7	95.8	21.4	14.3	4.2
Louisiana.....	81.0	82.3	96.0	19.0	17.7	4.0
Oklahoma.....	56.5	90.8	.....	43.5	9.2	.....
Texas.....	66.7	76.6	94.3	33.3	23.4	5.7
Mountain.....	79.2	85.6	85.9	20.8	14.4	14.1
Montana.....	78.9	86.0	84.4	21.1	14.0	15.6
Idaho.....	66.6	83.6	83.7	33.4	16.4	16.3
Wyoming.....	80.3	87.8	87.0	19.7	12.2	13.0
Colorado.....	73.6	73.0	74.5	26.4	27.0	25.5
New Mexico.....	94.6	97.9	97.0	5.4	2.3	3.0
Arizona.....	87.1	94.0	93.2	12.9	6.0	6.8
Utah.....	77.1	88.9	94.5	22.9	11.1	5.5
Nevada.....	83.3	80.7	82.8	16.7	19.3	17.2
Pacific.....	63.2	72.4	71.3	36.8	27.6	28.7
Washington.....	65.9	78.3	73.2	34.1	21.7	26.8
Oregon.....	66.3	74.8	76.3	33.7	25.2	23.4
California.....	59.5	67.8	67.5	40.5	32.2	32.5
Note—Owned farms and farm homes with no mortgage report are distributed between "owners free" and "owners mortgaged."						

LEADING FRUIT PRODUCING STATES

	First	Second	Third	Fourth
Apples.....	New York	Pennsylvania	Ohio	Virginia
Peaches and Nectarines.....	California	Texas	New Jersey	New York
Pears.....	California	New York	New Jersey	Pennsylvania
Plums and Prunes.....	California	Oregon	New York	Washington
Cherries.....	Pennsylvania	California	Indiana	New York
Apricots.....	California	Arizona	New York	Utah

* California raises over 90% of the entire apricot crop of the United States.

SUGAR PRODUCTION (Pounds)

Year ending June 30	Production in U. S.		Brought from		Per capita consumption in U. S.	* World's Production Estimated
	Cane	Beet	Porto Rico	Philippines	Hawaii	
1907.....	544,320,000	769,224,000	408,149,992	25,164,756	821,014,811	31,905,000,000
1908.....	788,480,000	927,256,430	469,205,082	38,408,000	1,077,570,637	30,632,000,000
1909.....	828,800,000	851,768,000	488,452,733	83,648,000	1,022,863,928	32,008,000,000
1910.....	750,400,000	1,024,938,000	569,039,881	175,869,739	1,110,594,466	32,826,000,000
1911.....	710,080,000	1,020,344,000	645,834,403	230,351,483	1,011,215,858	37,164,000,000
1912.....	721,748,000	1,199,000,000	734,289,872	435,570,122	1,205,465,510	35,639,000,000
1913.....	327,346,000	1,385,112,000	765,420,310	203,160,972	1,085,362,344	40,788,000,000
1914.....	600,996,000	1,466,802,000	641,252,527	116,749,211	1,114,750,702	41,983,000,000
1915.....	493,240,000	1,444,108,000	.....	.....	.....	40,376,000,000

Louisiana produces all but a very small part of the cane sugar made in the United States. * About half of the world's sugar production is beet.

STATISTICS OF CHURCHES IN THE UNITED STATES

(Compiled by H. K. Carroll, LL.D., Associate Secretary Federal Council of Churches of Christ in America)

RELIGIOUS ORGANIZATIONS

Denominations	Ministers	Churches	Communi- cants
Adventists (6 bodies)	1,169	2,579	98,927
Baptists (15 bodies)	42,710	57,537	6,179,622
Brethren (Dunkards, 4 bodies)	3,433	1,289	121,475
Brethren (Plymouth, 4 bodies)		403	10,566
Brethren (River, 3 bodies)	224	105	4,903
Buddhist (2 bodies)	15	74	3,165
Catholic Apostolic (2 bodies)	33	24	4,927
Catholics (Eastern Orthodox, 7 bodies)	341	401	462,500
Catholics (Western, 2 bodies)	19,068	15,055	13,613,137
Christadelphians		70	1,412
Christians	1,066	1,360	113,887
Christian Catholic (Dowie)	35	17	5,865
Christian Scientists	2,672	1,336	85,096
Christian Union	354	302	15,217
Churches of God (Winebrennerian)	509	595	41,475
Churches of the Living God (Colored, 3 bodies)	101	68	4,286
Churches of the New Jerusalem (2 bodies)	143	147	9,671
Communitistic Societies (2 bodies)		22	2,272
Congregationalists	6,091	6,129	755,088
Disciples of Christ (2 bodies)	8,261	11,143	1,519,821
Evangelical (2 bodies)	1,569	2,598	190,293
Faith Associations (9 bodies)	241	146	9,572
Free Christian Zion Church	20	15	1,835
Friends (4 bodies)	1,471	1,042	122,004
Friends of the Temple		3	376
German Evangelical Protestant	59	66	34,704
German Evangelical Synod	1,058	1,365	290,803
Jewish Congregations	1,084	1,769	143,000
Latter-Day Saints (2 bodies)	3,800	1,625	375,000
Lutherans (21 bodies)	9,450	16,220	2,444,970
Mennonites (12 bodies)	1,413	736	57,337
Methodists (16 bodies)	41,525	62,416	7,328,829
Moravian (2 bodies)	147	143	20,615
Nonsectarian Bible Faith Churches	50	204	6,396
Pentecostal (2 bodies)	802	738	28,946
Presbyterians (12 bodies)	14,066	16,834	2,083,617
Protestant Episcopal (2 bodies)	5,629	8,002	1,026,048
Reformed (4 bodies)	2,177	2,770	478,951
Reformed Catholic	7	6	3,250
Salvationists (2 bodies)	2,967	924	27,893
Scandinavian Evangelical (3 bodies)	629	857	72,900
Schwenkfelders	5	6	1,039
Social Brethren	15	17	1,262
Society for Ethical Culture	7	6	2,450
Spiritualists	2,100		200,000
Theosophical Society		154	4,714
Unitarians	524	475	70,542
United Brethren (2 bodies)	2,260	4,086	343,016
Universalists	650	717	52,000
Independent Congregations	267	879	48,673
Grand Total for 1914	178,520	225,575	38,724,347
Grand Total for 1913	175,078	224,172	37,945,071

CONSTITUENT BODIES OF THE FEDERAL COUNCIL

Denominations	Ministers	Churches	Communi- cants
Baptist Churches (North)	8,275	9,570	1,238,323
National Baptist Convention	13,806	16,842	2,018,868
Free Baptist Churches	805	1,110	65,440
Christian Church	1,066	1,360	113,887
Congregational Churches	6,091	6,129	755,088
Disciples of Christ	6,161	8,494	1,363,163
Friends	1,315	775	98,356
German Evangelical Synod	1,058	1,365	290,803
Evangelical Association	1,031	1,663	115,243
Lutheran Church General Synod	1,395	1,847	340,441
Mennonite General Conference	172	112	12,797

CONSTITUENT BODIES OF THE FEDERAL COUNCIL—Cont'd

Denominations	Ministers	Churches	Communi- cants
Methodist Episcopal Church	18,881	28,245	3,603,265
Methodist Episcopal Church, South	7,099	16,691	2,005,707
African M. E. Church	5,000	6,000	620,000
African M. E. Zion Church	3,552	3,180	568,608
Colored M. E. in America	3,072	3,196	240,798
Methodist Protestant Church	1,371	2,348	180,382
Moravian Church	143	122	19,615
Presbyterian Church in the U. S. A.	9,413	10,019	1,442,498
Presbyterian Church in the United States (South)	1,819	3,430	310,602
Protestant Episcopal Church (Commissions on Christian Unity and Social Service)	5,546	7,922	1,015,248
Reformed Church in America	775	707	123,143
Reformed Church in the U. S.	1,217	1,770	312,660
Reformed Episcopal Church	83	80	10,800
Reformed Presbyterian Church (General Synod)	16	17	3,300
Seventh-Day Baptist Church	101	76	7,927
United Brethren Church	1,953	3,583	322,044
United Evangelical Church	538	935	75,050
United Presbyterian Church	1,167	1,126	148,220
Welsh Presbyterian Church	97	156	14,374
Total	103,018	138,870	17,436,650

INCREASE IN COMMUNICANTS BY PERIODS

DENOMINATIONS OF ONE HUNDRED THOUSAND OR MORE

Denominations	Total in 1914	Increase since 1910	1900
Roman Catholic	13,794,637	1,228,590	5,621,686
Methodist Episcopal	3,603,265	416,403	693,334
Southern Baptist	2,592,217	309,151	953,332
Baptist (Colored)	2,018,868	228,703	424,304
Methodist Episcopal, South	2,005,707	154,558	537,317
Presbyterian (Northern)	1,442,498	113,784	495,065
Disciples of Christ	1,363,163	55,047	213,181
Baptists (North)	1,238,323	27,610	238,666
Protestant Episcopal	1,015,238	86,468	304,892
Lutheran Synodical Conference	850,772	84,481	269,743
Congregationalists	755,088	19,688	123,728
African Methodist Episcopal	620,000	120,000	444,462
African Methodist Episcopal Zion	568,608	21,392	32,337
Lutheran General Council	479,765	20,541	123,364
Lutheran General Synod	340,441	38,001	140,852
United Brethren	322,044	38,362	82,405
Reformed (German)	312,660	15,544	69,829
Southern Presbyterian	310,602	28,682	84,712
Latter-Day Saints, Utah	310,000	d ⁵⁰	50,000
German Evangelical Synod	290,803	54,188	87,229
Colored Methodist Episcopal	240,798	6,077	35,826
Spiritualists	200,000	50,000	154,070
Methodist Protestant	180,382	48,055	23,332
Greek Orthodox	175,000	50,000	170,000
Lutheran United Norwegian Churches of Christ (Disciples)	168,363	6,399	38,363
United Presbyterian	156,658	148,220	13,210
Jewish Congregations	143,000		32,319
Lutheran Synod of Ohio	136,923	9,493	59,561
Reformed (Dutch)	123,143	6,328	15,549
Cumberland Presbyterian	122,000	7,000	458,192
Lutheran Synod of Iowa	116,912	10,319	6,854
Evangelical Association	115,243	6,578	18,899
Christians	113,887	26,409	
Primitive Baptist	102,311		

* Probably not due to actual decrease. Due to more correct figures.

d Result of division reported since 1900.

d Decrease.

TABLES FOR FINDING THE DAY OF THE WEEK FOR KNOWN DATES

Years less than Century	TABLE 1								TABLE 2								TABLE 3 Used for Both Styles. The vertical columns show the Sundays							
	Centurial Years, New Style								Centurial Years, Old Style															
			1500	1600			100	200	300	400	500	600			A	B	C	D	E	F	G			
	1700	1800	1900	2000	700	800	900	1000	1100	1200	1300			Jan. Oct.	1 8 15 22 29	2 9 16 23 30	3 10 17 24 31	4 11 18 25 ..	5 12 19 26 ..	6 13 20 27 ..	7 14 21 28 ..			
	2100	2200	2300	2400	1400	1500	1600	1700	1800	1900	2000			Feb. March Nov.	.. 12 19 26	.. 6 13 20 27	.. 3 10 17 24 31	1 8 15 22 29	2 9 16 23 30	3 10 17 24 31	4 11 18 25 ..			
														April July	.. 9 16 23 30	3 10 17 24 31	.. 11 18 25 ..	.. 12 19 26 ..	.. 13 20 27 ..	.. 14 21 28 ..	1 8 15 22 29
														Aug.	.. 6 13 20 27	.. 7 14 21 28	1 8 15 22 29	2 9 16 23 30	3 10 17 24 31	4 11 18 25 ..	5 12 19 26 ..			
														Sept. Dec.	.. 10 17 24 31	.. 4 11 18 25	.. 12 19 26 ..	.. 13 20 27 ..	.. 14 21 28 ..	.. 15 22 29 ..	1 8 15 22 29
														May	.. 14 21 28	1 8 15 22 29	2 9 16 23 30	3 10 17 24 31	4 11 18 25 ..	5 12 19 26 ..	6 13 20 27 ..			
														June	.. 11 18 25	.. 5 12 19	.. 6 13 20	.. 7 14 21	1 8 15 22	2 9 16 23	3 10 17 24 ..			

1	29	57	85	C	E	G	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F	G	D	E	F	A	B	C	B	A	D	F
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The first seven letters of the alphabet, in numerical order, have long been used in almanacs as "Dominical Letters," or Sunday letters, to indicate what day of the week the year begins on. The days on which consecutive year begin are in reverse order of the Sunday letters, A, B, C, D, E, F, G, and these show the days of the week for Jan. 1 as follows: A, Sunday, B, Saturday, C, Friday, D, Thursday, E, Wednesday, F, Tuesday, and G, Monday.

If the year is a leap-year, there must be two letters for it; the left-hand must be used for Jan. and Feb. only, and the other letter used for the other ten months. A table of Dominical Letters affords a very simple and ready method of finding the day of the week, of any day of any month, in any year. Table 1 gives the dominical letters for the "Gregorian Style," now in general use, beginning in the Catholic States of Europe in 1582. This was not adopted by England until 1752, and Russia not until 1901. The Julian Calendar, or "Old Style," as now designated, was founded by Julius Caesar, and began with the year 45 B. C. It assumed the civil year to be just 365 1/4 days long, which was 11 1/4 minutes too much, and every fourth year was of 366 days. In 1582 this error amounted to 10 days, and Oct. 5th was counted 15th. The history of the world, from 45 B. C., to 1582, over 1600 years, is very largely recorded in

the old style dates. That these dates may be put into week-days for the convenience of students of history, Table 2 is given above. There are no dates in this style prior to 45 B. C. Table 3 can be used in both "Old and New Style." In this Table the Sundays in any month are under the Dominical Letter for the year given, and in the vertical column opposite to the month given, and once knowing the Sundays, the other days are mentally obtained.

Example: On what day of the week did Columbus discover America (San Salvador), Oct. 12, 1492? This being an "old style" date, Table 2 must be used. Under the Centurial 1400, and at the right of 92 are the letters AG (a leap-year). In Table 3, under G, the 14th of Oct. is found to be Sunday, and hence the 12th was Friday, the day sought. When the given year has two letters, the first applies only to Jan. and Feb. Therefore G is used in this case.

Example: On what day of the week was Abraham Lincoln shot, April 14th, 1865? This is a New Style date, and Table 1 must be used. Under the Centurial year 1800, and opposite 65 is A, and in Table 3 under A the 16th of April is found to be Sunday, hence the 14th was Friday, the day wanted, and by a strange coincidence it was "Good Friday" of Church days.

Chart Showing Number of Books Published in the United States During The Year 1915

Arranged In Classes

By Fred E. Woodward

Total Number 9,734

A Decrease of 2,274
From 1914

Fiction Smallest Since
1898

Everybody At Work

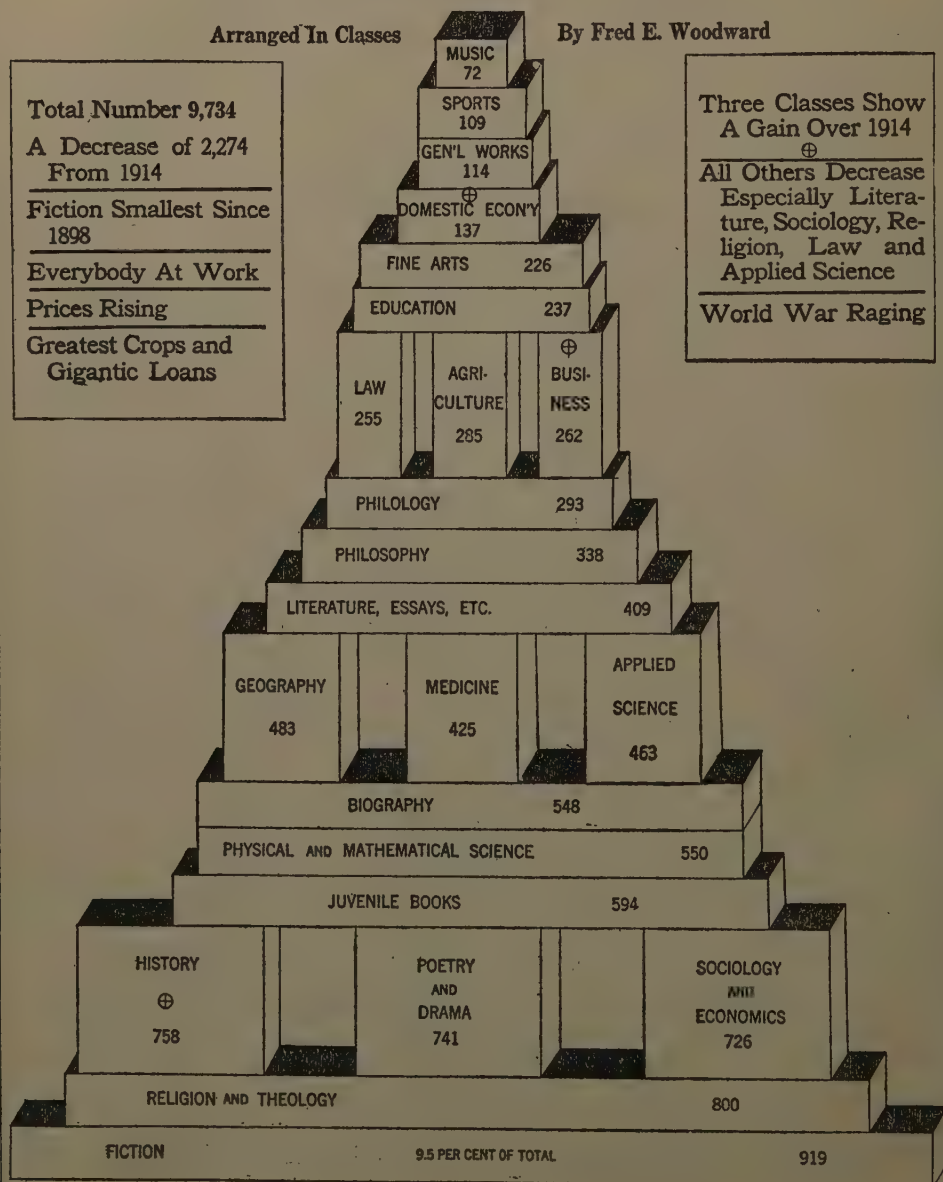
Prices Rising

Greatest Crops and
Gigantic Loans

Three Classes Show
A Gain Over 1914

⊕
All Others Decrease
Especially Literature, Sociology, Religion, Law and Applied Science

World War Raging



THE BOOKS OF 1915

The publication of books in the United States suffered a severe set back in 1915, when compared with previous years, the decline amounting to 2,276. This is about 19 per cent of 12,010, the total for 1914.

No doubt the great European War supplies the reason for the decline in a large measure, as the facilities for getting books and materials from across the water were lessened, and a disturbed condition of the whole world interfered with the publication of books in this country.

For convenience, the books of the year are divided into 23 classes as shown in the accompanying chart, and the actual number of books published during the year is seen in the figures marked in each section.

Thus, the largest one shows that 919 works of Fiction were issued in 1915 and the smallest one, 72 on Music. This is an exceedingly small number for Fiction and is but 9.44 per cent of the whole number. It is also smaller than any year since 1898, when the total for Fiction was 932.

When we compare the chart with the figures for 1914, we discover that there was a loss of 2,274, which was divided among 20 classes, and that three classes only made gains. These three were History, with a gain of 177, Domestic Economy with a gain of 2, and Business with a gain of 35.

Religion and Theology has always had a large registration, the average for the past nine years being above 800, the figures for 1914 being 1,032 and 1915, 800.

Poetry and Drama, although large (741), was larger still in 1914 when 903 titles were recorded, the largest number ever registered. Every year since 1906 the number has been 600 or more.

Sociology and Economics, number four on the chart, was number three in 1914 when 1,038 were registered. This class has shown a wonderful increase during the past 15 years, keeping pace practically with the Socialistic vote for the same period and reflecting the thoughtful manner of the people.

History, with 756, registers the largest number in its history, an increase of 177 over last year and of 217 over 1912. The large number of books on the European War suggests the reason for the increase, as many of the books on war must be classed as history.

Juvenile books with 594 does not change very much, as the average for the past 5 years has been about 600. Reprints are not numerous in this class, and 25 per cent of the whole are by foreign authors.

Both Physical and Mathematical Science and Applied Science show increased numbers during the past 8 years, the total in some years rising to 1,500 in the two classes.

Medicine and Hygiene shows a decline not only for 1915, but a decrease during the past 7 years, the total in 1909 being 756 as against 463 in 1915.

History, Biography and Travel, including Memoirs and Genealogy all exhibit a steady growth in recent years, the increase beginning in 1899 in Biography, 1903 in History, 1907 in the others, and this growth has been well maintained.

Education has hardly held its own in the last 15 years, the largest number ever recorded being in 1900 (641). In 1911, a new class was made called Philology, and no doubt some of the books entered in this class in 1911 and in subsequent years would have been classed as Education in the earlier classification.

Philosophy with 338 in 1915 shows a decline from the previous year, when 408 were registered, although the past six years gives an aggregate of 2,000 titles of which only 318 were reprints. For twenty years previous to 1910 the output of this class was very small.

Law. This class presents a serious problem; large in numbers even twenty-five years ago, it increased from 348 in 1891 to 862 in 1912. Then began a decline which is most extraordinary. In 1913, the loss was 150 (from 862 to 692). In 1914, the loss was 185 (from 692 to 507). In 1915, the loss was 252 (from 507 to 255), a decline of nearly 50%. This is also the smallest number recorded in this class for twenty-six years. The extremely small number of importations, 142 in twelve years, or about twelve per year, can hardly be regarded as a factor in the case.

Games, Sports, and Amusements presents no attractive features, the gain in this class being about in keeping with the increase in population, in the whole country. The years 1904, 1905, and 1910 were times of increase, and the decline of 1906

was due to a printers' strike in New York City, which was seriously reflected in many of the classes that year.

Literature, Essays and Collected Works is a varying class, and the number for 1915 (409), is smaller than for any year since 1899. This decline of 323 below the previous year is due largely to the European War. There are naturally many reprints in this class as well as a large number of books by foreign authors.

Fine Arts. This class has never fallen below 135, nor has it risen above 345 in twenty-six years. In 1911, a new class was formed known as Music and since that year 476 books have been recorded in the class of Music. This class has but few reprints, but has many books by foreign authors.

Domestic Economy exhibits an uninteresting line with a slow growth until 1909. In 1911, a new class was formed called Agriculture, the books of which had formerly been grouped with this class. There are very few reissues and a very limited number of books from the other side of the water in either of these two classes.

Business is a new class established in 1911, and has enrolled from 210 to 252 in each of the five years.

General Works, Encyclopedias, Reference Books, and Miscellaneous came into existence in 1901 when 31 books were recorded, the largest number being in 1908, when 293 were issued.

UNITED STATES BOARD OF MEDIATION AND CONCILIATION

The purpose for which the Board of Mediation and Conciliation, created by act of Congress approved July 15, 1913, was established, is to settle by mediation, conciliation, and arbitration controversies concerning wages, hours of labor or conditions of employment that may arise between common carriers engaged in interstate transportation and their employees engaged in train operation or train service.

In any case where an interruption of traffic is imminent and fraught with serious detriment to the public interest, the Board of Mediation and Conciliation may, if in its judgment such action seem desirable, proffer its services to the respective parties to the controversy.

Whenever a controversy concerning wages, hours of labor, or conditions of employment arises between such railroads and such employees, interrupting or threatening to interrupt the operation of trains to the serious detriment of the public interest, upon the request of either party the Board of Mediation is required to use its best efforts, by mediation and conciliation, to bring about an agreement. If such efforts to bring about an amicable adjustment through mediation and conciliation are unsuccessful, the board endeavors to induce the parties to submit their controversy to arbitration and, if successful, makes the necessary arrangements for such arbitration.

The board is an independent office, not connected with any department.

The board consists of Martin A. Knapp, Chairman, and William L. Chambers, Commissioner. G. W. W. Hanger is Assistant Commissioner.

FIRST RAILWAYS IN THE UNITED STATES

The first railway in New York State, and among the first in America, was the Mohawk and Hudson line, which was completed eighty-five years ago. The line connected Albany and Schenectady, a distance of about thirteen miles. The Mohawk and Hudson Railroad Company was the first corporation of its kind chartered in the New World, having been incorporated in 1825.

Its completion, however, was anticipated by the Baltimore and Ohio, chartered in 1827, which opened a fourteen-mile line early in 1830. Both of these roads were constructed with the idea of carrying both passengers and freight. The Granite line, a three-mile road at Quincy, Mass., and the Mauch Chunk and Summit Hill, which had a mileage of nine, both of which were completed in 1827, were the first railroads on the continent, but both were short industrial lines for freight-carrying purposes only. The first really ambitious railroad was the Charleston and Hamburg, extending from Charleston, S. C., to Augusta, Ga., a distance of 137 miles. It was opened in 1833, and was then the longest continuous railway in the world.

STATISTICS OF MANUFACTURING ACCORDING TO INDUSTRIES

INDUSTRY	Number of establishments	Wage Earners	Value of Products Amount expressed in thousands	Value added by manufacture Amount expressed in thousands	PER CENT OF INCREASE SINCE 1900		
					Wage Earners	Value of products	Value added by manufacture
Slaughtering and meat packing.....	1,641	89,728	1,370,568	168,740	19.0	48.6	52.6
Foundry and machine-shop products...	13,253	531,011	1,228,475	688,464	19.8	39.5	34.2
Lumber and timber products.....	40,671	695,019	1,156,129	648,011	30.5	30.7	23.7
Iron and steel, steel works and rolling mills.....	446	240,076	985,723	328,222	15.7	46.3	41.0
Flour-mill and gristmill products.....	11,691	39,453	883,584	116,008	0.9	23.9	24.7
Printing and publishing.....	31,445	258,434	737,876	536,101	18.0	33.6	30.8
Cotton goods, including cotton small wares.....	1,324	378,880	628,392	257,383	19.9	39.5	56.7
Clothing, men's including shirts.....	6,354	239,696	568,077	270,562	38.0	39.7	38.5
Boots and shoes, including cut stock and findings.....	1,918	198,297	512,798	180,060	23.7	43.4	36.0
Woolen, worsted, and felt goods, and wool hats.....	985	168,722	435,979	153,101	15.0	36.5	33.4
Tobacco manufactures.....	15,822	166,810	416,695	239,509	4.6	25.8	16.8
Cars and general shop construction and repairs by steam-railroad companies.....	1,145	282,174	405,601	206,188	19.1	30.9	29.9
Bread and other bakery products.....	23,926	100,216	396,865	158,831	23.3	47.2	39.8
Iron and steel, blast furnaces.....	208	38,429	391,429	70,791	9.6	68.8	33.9
Clothing, women's.....	4,558	153,743	384,752	175,964	32.9	55.4	50.5
Smelting and refining, copper.....	38	15,628	378,806	45,274	22.6	57.3	2.8
Liquors, malt.....	1,414	54,579	374,730	278,134	13.4	25.6	24.5
Leather, tanned, curried and finished.....	919	62,202	327,874	79,595	8.7	29.8	29.5
Sugar and molasses, not including beet sugar.....	233	13,526	279,249	31,666	-0.2	0.7	-2.7
Butter, cheese, and condensed milk....	8,479	18,431	274,558	39,012	18.5	63.2	54.4
Paper and wood pulp.....	777	75,978	267,657	102,215	15.2	41.8	32.0
Automobiles, including bodies and parts.....	743	75,721	249,202	117,556	528.4	729.7	596.3
Furniture and refrigerators.....	3,155	128,452	239,887	131,112	12.5	34.9	29.9
Petroleum, refining.....	147	13,929	236,998	37,725	-16.9	35.4	5.9
Electrical machinery, apparatus, and supplies.....	1,009	87,256	221,309	112,743	44.3	57.2	52.4
Liquors, distilled.....	613	6,430	204,699	168,722	20.1	55.9	59.7
Hosiery and knit goods.....	1,374	129,275	200,144	89,903	24.2	46.0	49.1
Copper, tin and sheet-iron products.....	4,228	73,615	199,824	87,242	38.8	66.6	55.8
Silk and silk goods, including throwsters.....	852	99,037	196,912	89,145	24.4	47.7	55.2
Smelting and refining, lead.....	28	7,424	167,406	15,443	-2.0	-9.9	-8.5
Gas, illuminating and heating.....	1,296	37,215	166,814	114,386	21.8	33.3	30.0
Carriages and wagons and materials....	5,492	69,928	159,893	77,942	-10.2	2.6	-0.5
Canning and preserving.....	3,767	59,968	157,101	55,278	5.3	20.4	16.8
Brass and bronze products.....	1,021	40,618	149,989	50,761	22.5	46.5	38.1
Oil, cottonseed and cake.....	817	17,071	147,868	28,035	9.9	53.4	71.2
Agricultural implements.....	640	50,551	146,329	86,022	6.7	30.6	35.0
Patent medicines and compounds and druggists' preparations.....	3,642	22,895	141,942	91,566	11.8	20.9	17.5
Confectionery.....	1,944	44,638	134,796	53,645	23.2	54.8	40.1
Paint and varnish.....	791	14,240	124,889	45,873	22.4	37.5	47.9
Cars, steam-railroad, not including operations of railroad companies.....	110	43,086	123,730	44,977	26.5	11.3	26.6
Chemicals.....	349	23,714	117,689	53,567	19.7	56.5	61.5
Marble and stone work.....	4,964	65,603	113,093	75,696	28.4	33.3	29.9
Leather goods.....	2,375	34,907	104,719	44,692	2.1	27.5	18.6
All other industries.....	61,887	1,648,441	4,561,002	2,084,399	18.5	41.8	36.6

NOTE.—The minus sign (—) indicates a decrease in per cent.

By far the highest percentages of increase are shown for the automobile industry, the gross value of products of which increased more than sevenfold during the five years 1904 to 1909, and more than fiftyfold during the decade as a whole. Other industries which show exceptionally large increases for both five-year periods in all three items are the making of men's and of women's clothing, the bakery and the butter, cheese, and condensed-milk industries, the manufacture of electrical machinery, apparatus, and supplies, and of copper, tin, and sheet-

iron products, the distillery industry, the manufacture of hosiery and knit goods and of silk and silk goods, the illuminating-gas industry, the manufacture of brass and bronze products, and the confectionery, paint and varnish, and marble and stone work industries. It is interesting to note that the group of "all other industries," which includes the less important industries of the country, shows greater percentages of increase than all industries combined, thus indicating possibly an increased tendency toward diversification in manufacturing industries.

MANUFACTURES OF THE UNITED STATES

(From 1910 Census Report.)

	NUMBER OR AMOUNT.			PER CENT OF INCREASE.	
	1909	1904	1899	1904-1909	1899-1904
Number of establishments.....	268,491	216,180	207,514	24.2	4.2
Persons engaged in manufactures.....	7,678,578	6,213,612	(1)	23.6	(1)
Proprietors and firm members.....	273,265	225,673	(1)	21.1	(1)
Salaried employees.....	790,267	519,556	364,120	52.1	42.7
Wage earners (average number).....	6,615,046	5,468,383	4,712,763	21.0	16.0
Primary horsepower.....	18,680,776	13,487,707	10,097,893	38.5	33.6
Capital.....	\$18,428,270,000	\$12,675,581,000	\$8,975,256,000	45.4	41.2
Expenses.....	18,453,080,000	13,138,260,000	9,870,425,000	40.5	33.1
Services.....	4,365,613,000	3,184,884,000	2,389,132,000	37.1	33.3
Salaries.....	938,575,000	574,439,000	380,771,000	63.4	50.9
Wages.....	3,427,038,000	2,610,445,000	2,008,361,000	31.3	30.0
Materials.....	12,141,791,000	8,500,208,000	6,575,851,000	42.8	29.3
Miscellaneous.....	1,945,676,000	1,453,168,000	905,442,000	33.9	60.5
Value of products.....	20,672,052,000	14,793,903,000	11,406,927,000	39.7	29.7
Value added by manufacture (value of products less cost of materials).....	8,530,261,000	6,293,695,000	4,831,076,000	35.5	30.3

¹ Figures not available.

In 1909 the United States had 268,491 manufacturing establishments, which gave employment during the year to an average of 7,678,578 persons, of whom 6,615,046 were wage earners. These manufacturing establishments paid \$4,365,613,000 in salaries and wages, and turned out products to the value of \$20,672,052,000, to produce which materials costing \$12,141,791,000 were consumed. The value added by manufacture, namely, the difference between the cost of materials and the total value of products, was \$8,530,261,000. This figure best represents the net wealth created by manufacturing operations, because the gross value of products includes the cost of the materials used, which are either the products of non-manufacturing industries, such as agriculture, forestry, fisheries, and mining, or else are themselves the product of manufacturing establishments. The value of products derived from this latter class of materials involves a duplication, inasmuch as the value of these materials has already figured in the value of products reported for the establishments manufacturing them in the first instance; in some cases, indeed, where a given product has passed through several distinct stages of manufacture in different establishments before reaching its final form, this duplication may be repeated several times. All such duplications, as well as the original value of materials, are, however, eliminated in the figures for value added by manufacture. This value covers salaries and wages—which represent over one-half of the total—overhead charges, depreciation, interest, taxes and other expenses attendant upon the manufacturing operations, as well as the profits of the undertaking.

The table above shows that the manufacturing industries of the United States as a whole experienced a more rapid growth during the five-year period 1904-1909 than during the period 1899-1904, although in both periods the progress was very marked.

THE LEADING MANUFACTURING STATES

The first seven states in respect to number of wage earners in manufacturing industries are as follows:

	Establishments.	Wage Earners.
1. New York.....	44,935	1,003,981
2. Pennsylvania.....	27,563	877,543
3. Massachusetts.....	11,684	584,559
4. Illinois.....	18,026	465,764
5. Ohio.....	15,138	446,934
6. New Jersey.....	8,817	326,223
7. Michigan.....	9,159	231,499

Each of these States has the same rank in value of products and value added by manufacture except that Illinois which is third in value of products and value added by manufacture, ranks fourth in number of wage earners, exchanging places with Massachusetts. These seven States do over three-fifths of the total manufacturing in the United States.

The greatest percentages of increase are naturally in those States in which the development of manufacturing industries is comparatively recent. Thus Texas, Washington, Oregon, Utah, Oklahoma, Idaho, North Dakota, and Nevada show

exceptionally high rates of increase for both five-year periods. Among the 10 States which are most important in manufacturing the most conspicuous advances are in Ohio, New Jersey and Michigan. The absolute increase as distinguished from the percentage of increase was greater in New York, the leading manufacturing State, than in any other State.

While the slaughtering and meat-packing industry holds first place in gross value of products the lumber and timber products lead in the number of wage earners, and the foundry and machine shop products rank first in the amount added by manufacture.

THE LEADING MANUFACTURING CITIES

	No. of Establishments.
1. New York, N. Y.....	25,938
2. Chicago, Ill.....	9,656
3. Philadelphia, Pa.....	8,379
4. St. Louis, Mo.....	2,667
5. Cleveland, Ohio.....	2,148
6. Detroit, Mich.....	2,036
7. Pittsburgh, Pa.....	1,659
8. Boston, Mass.....	3,155

While Boston is fourth in number of manufacturing establishments, it is only eighth in the value of products.

In the case of practically every large city there are important manufacturing establishments in the immediate vicinity, and in the case of several of the cities such outside establishments, which virtually constitute a part of the city's industrial interests, have a greater value of products than those within the city itself. The most notable instances of this character are Pittsburgh and Boston, which would rank decidedly higher in a table based on metropolitan or industrial districts than they do in the table for cities proper. While the population of Pittsburgh proper is 533,905, the population of the metropolitan district of Pittsburgh, as defined by the Census Bureau, is 1,042,855. Similarly, the population of the Boston metropolitan district is 1,520,470, as compared with 670,585 for the city proper.

Of the cities reporting products of \$200,000,000 or more, Detroit showed the greatest percentage of increase in all of the items under consideration and Cleveland the next greatest with the exception of the number of wage earners in which it was exceeded by Milwaukee. Among the smaller manufacturing cities, those showing conspicuous increases are Akron, Perth Amboy, Los Angeles, and Seattle.

COMMERCE OF LARGEST CITIES 1913

1. New York.....	\$1,973,981,693
2. London.....	1,791,857,641
3. Hamburg.....	1,674,187,176
4. Liverpool.....	1,637,280,476
5. Antwerp.....	1,121,654,799
6. Marseilles.....	678,431,300
7. Havre.....	531,096,600
8. Bremen.....	501,146,540
9. Buenos Aires.....	479,536,241
10. Calcutta.....	410,128,830

THE COAL INDUSTRY

The United States produces about 500,000,000 tons of coal annually. The tonnage is sufficient to occupy every mile of steam railroad track in the nation with loaded cars. One-fourth of the freight of all our railroads is coal. New York city consumes and distributes 20,000,000 tons.

The first record of coal discovered in the United States was made by Father Hennepin at Ottawa, Ill., in 1679. Coal lands that in Washington's time could be purchased at 10 cents an acre are worth to-day \$2,500 to \$3,000 an acre.

The total coal production of the world for 1913, according to statistics, compiled by the U. S. Geological Survey, was 1,443,000,000 tons. United States, 570,048,125 tons; Great Britain and Ireland, 321,922,130; Germany, 281,979,467; France, 45,108,544; Belgium, 25,322,851 tons. England produced 7.09 tons for each inhabitant; the United States, 5.08 tons; Belgium, 3.4 tons; Germany, 4.33 tons, and France, 1.13 tons.

The United States, England, and Germany are the only important nations that produce enough coal for their own consumption. France has to import about one-third of its coal.

The U. S. Geological Survey in 1913 estimated the coal supply in the United States as follows:

State	Short tons
Alabama	67,200,600,000
Arizona	14,151,400,000
Arkansas	1,832,000,000
California	36,267,000
Colorado	317,589,600,000
Georgia	918,800,000
Idaho	699,927,000
Illinois	199,951,500,000
Indiana	52,673,500,000
Iowa	28,880,000,000
Kansas	29,805,500,000
Kentucky	123,015,000,000
Maryland	7,780,500,000
Michigan	11,965,600,000
Missouri	83,820,000,000
Montana	381,053,800,000
New Mexico	191,777,900,000
North Carolina	199,284,300
North Dakota	697,921,200,000
Ohio	92,943,900,000
Oklahoma	54,862,300,000
Oregon	996,750,000
Pennsylvania:	
Anthracite	16,153,000,000
Bituminous	108,474,000,000
South Dakota	1,020,300,000
Tennessee	25,479,000,000
Texas	30,960,000,000
Utah	88,294,100,000
Virginia	22,365,500,000
Washington	63,776,400,000
West Virginia	150,363,600,000
Wyoming	670,545,100,000
Total	3,538,506,328,300

COAL MINED IN THE UNITED STATES

	Anthracite	Bituminous	Total
1880	28,649,812	42,831,758	71,481,570
1890	46,468,641	111,302,322	157,770,963
1900	57,367,915	212,316,112	269,684,027
1905	77,659,850	315,062,785	392,722,635
1906	71,282,411	342,874,867	414,157,278
1907	85,604,312	394,759,112	480,363,424
1908	83,268,754	332,573,944	415,842,698
1909	81,070,359	379,744,257	460,814,616
1910	84,485,236	417,111,142	501,596,378
1911	90,464,067	405,907,059	496,371,126
1912	84,361,598	450,104,982	534,466,580
1913	91,524,922	478,523,203	570,048,125

The total value of the coal mined in 1913 was \$760,488,785, or \$1.33 per ton.

FATALITIES IN COAL MINES

1897	934	1906	2,115
1898	1,032	1907	3,200
1899	1,217	1908	2,447
1900	1,465	1909	2,637
1901	1,543	1910	2,838
1902	1,891	1911	2,719
1903	1,729	1912	2,360
1904	1,962	1913	2,785
1905	2,175	1914	2,451

There were in 1913, 747,644 men employed in the coal mines of the United States who worked an average of 238 days of the year.

THE NATIONAL SECURITY LEAGUE

The National Security League is an organization formed in New York, December 1st, 1914, with a view to procuring a thorough knowledge of the naval and military needs of the United States and the best means of supplying them, and supporting in every legitimate manner the plans for the more efficient organization of the regular army recommended by the Secretary of War. It is the belief of the members that the National Guard should be developed to the limit of efficiency, that the regular army should be increased by 25,000 men, that an organized reserve should be created and maintained, that theoretical training in manoeuvres should be given in American colleges, that some sort of military duty should be required from all citizens between 18 and 45 years of age, and that all citizens fitted for military duty should be officially classified. They are against military instruction to public school children, but believe that a course of study should be given in the public schools to emphasize the needs for public service, and that physical training should be made a prominent feature of public school life. They believe that until a satisfactory plan for disarmament has been worked out and agreed upon by the nations of the world, the United States must be adequately prepared for defense. They feel that useless navy-yards and useless and obsolete army-posts should be abolished, the army to be concentrated in a few posts strategically located; that comparatively small increase in our military and naval appropriations would be necessary if money were spent wisely and economically. The League is pledged to the work of securing legislation necessary to carry out the plans above outlined. It is the intention to expand the League until it has branches in every leading city. Already it numbers among its members some of the most prominent men in the country. The society is supported on the membership plan, the membership fee being \$1.00. Headquarters are at 31 Pine Street, New York.

THE SMITHSONIAN INSTITUTION

The Smithsonian Institution, Washington, owes its origin to a legacy left by James Smithson, a natural son of the first Duke of Northumberland, who died in 1829, and bequeathed the sum of \$515,000 "for the increase and diffusion of knowledge among men." The founder died in England, but his body was brought over, and interred in the Institution in 1904. The Institution encourages research, and is the chief promoter of scientific investigations of the climate, products, and antiquities of the United States.

THE NATIONAL TOP NOTCH FARMERS' CLUB

The mission of the National Top Notch Farmers' Club is to fire the ambition of the farm boys of the United States to attain to the highest standard of excellence in the production of large yields of the leading crops.

The National Top Notch Farmers' Club is composed of men, boys and girls who have well-authenticated records of growing one hundred or more bushels of corn or oats per acre, fifty or more bushels of wheat per acre, four hundred or more bushels of potatoes per acre, or six or more tons of alfalfa hay per acre. The office of the Secretary is at Springfield, Illinois.

FOREIGN COMMERCE OF THE UNITED STATES

(Year ending June, 1916)

IMPORTS AND EXPORTS BY GRAND DIVISIONS AND COUNTRIES

IMPORTS FROM:	12 months ended with June	
	1916 Dollars.	1915 Dollars.
Grand Divisions:		
Europe.....	616,252,749	614,354,645
North America.....	591,895,543	473,079,796
South America.....	391,562,018	261,489,563
Asia.....	437,181,464	247,770,103
Oceania.....	96,225,991	52,522,552
Africa.....	64,765,745	24,953,081
Total.....	2,197,883,510	1,674,169,740

Principal countries:

Austria-Hungary.....	1,431,570	9,794,418
Belgium.....	1,478,579	10,222,860
France.....	102,077,620	77,158,740
Germany.....	13,945,743	91,372,710
Italy.....	57,432,436	54,973,726
Netherlands.....	38,534,509	32,518,890
Norway.....	6,851,714	10,668,864
Russia in Europe.....	3,613,956	2,512,381
Spain.....	27,864,130	18,027,492
Sweden.....	11,846,881	11,661,337
Switzerland.....	21,775,413	19,335,483
United Kingdom.....	308,443,223	256,351,675
Canada.....	204,018,227	159,571,712
Mexico.....	97,676,544	77,612,691
Cuba.....	228,977,567	135,706,901
Argentina.....	112,512,420	73,776,258
Chile.....	132,663,984	99,178,728
Brasil.....	64,154,859	27,689,780
China.....	71,655,045	40,156,139
British East Indies.....	177,423,346	87,177,237
Japan.....	147,644,228	98,882,638
Australia and New Zealand.....	64,553,441	27,244,039
Philippine Islands.....	28,232,249	24,020,169
Egypt.....	33,254,943	17,371,992

EXPORTS TO:

Grand Divisions:		
Europe.....	2,999,183,429	1,971,434,687
North America.....	732,890,028	477,075,721
South America.....	180,356,555	99,323,957
Asia.....	278,470,228	114,470,493
Oceania.....	99,241,555	77,764,725
Africa.....	43,517,070	28,519,751
Total.....	4,333,658,865	2,768,589,340

Principal countries:

Austria-Hungary.....	152,929	1,238,669
Belgium.....	21,848,638	20,662,315
Denmark.....	55,662,411	79,824,478
France.....	630,672,504	369,397,170
Germany.....	288,851	28,863,354
Greece.....	4,333,292	3,499,975
Italy.....	270,489,922	184,819,638
Netherlands.....	99,232,930	143,267,019
Norway.....	53,678,126	39,074,701
Russia in Europe.....	183,259,605	37,474,380
Spain.....	52,771,652	38,112,969
Sweden.....	51,939,182	78,273,818
United Kingdom.....	1,518,046,263	911,794,954
Canada.....	466,884,415	300,686,812
Central America.....	41,752,081	33,585,728
Mexico.....	48,308,542	34,164,447
Cuba.....	127,040,067	75,530,382
Argentina.....	65,993,611	32,549,606
Brazil.....	41,202,277	25,629,555
Chile.....	24,289,652	11,377,181
China.....	25,120,896	16,402,475
British East Indies.....	24,696,035	15,980,734
Japan.....	75,098,188	41,517,780
Russia in Asia.....	130,255,759	23,353,151
Australia and New Zealand.....	74,464,108	51,986,649
Philippine Islands.....	23,426,009	24,753,320
British Africa.....	28,340,948	18,271,085

LEADING ARTICLES OF EXPORT IN 1916

CLASSES	1916 1915 (In Million Dollars)	
	1916	1915
Iron and steel manufactures.....	621.2	225.9
Explosives.....	467.1	41.5
Raw cotton.....	374.2	376.2
Wheat and flour.....	302.8	428.4
Meat and dairy products.....	291.1	220.1
Mineral oils.....	166.4	133.7
Brass manufactures.....	164.9	20.5
Copper pigs, etc.....	159.5	96.2
Leather and manufactures of.....	146.6	120.7
Chemicals, medicines, etc.....	124.4	46.4
Automobiles and parts.....	120.0	68.1
Cotton goods.....	112.1	72.0
Sugar refined.....	79.4	25.6
Horses.....	73.5	64.0
Coal.....	66.0	55.9
Wool manufactures.....	54.0	27.3
Tobacco, unmanufactured.....	53.2	44.5
Oats.....	48.0	57.5
Cars and carriages.....	47.7	17.0
Zinc manufactures.....	45.9	21.2
Fruits and nuts.....	37.0	34.0
Rubber manufactures.....	35.2	14.8
Wood and manufactures of.....	32.8	24.8
Corn and corn meal.....	32.4	41.3
Electrical goods.....	30.3	19.8
Paper and manufactures of.....	29.1	19.8
Oil cake and meal.....	28.5	28.9
Boards, deals, etc.....	27.9	25.1
Vegetable oils.....	27.2	25.8
Mules.....	22.9	12.7
Fiber manufactures.....	21.4	12.3
Barley.....	20.7	18.2
Fish.....	20.0	12.9
Lead manufactures.....	17.8	9.0
Agricultural implements.....	17.6	10.3
Rye.....	16.0	15.1
Vegetables.....	16.0	10.8
Naval stores.....	13.5	11.1
All other articles.....	308.9	218.4
Total domestic exports.....	4,272.4	2,716.2

Recapitulation	Value	
	1916	1915
Carried in—		
Cars and other land vehicles.....	\$484,786,842	\$285,349,701
American vessels.....	490,566,720	284,410,965
Foreign vessels—		
Austrian.....		877,044
Belgian.....	31,946,584	15,439,965
British.....	2,110,985,614	1,394,215,920
Danish.....	62,936,331	
Dutch.....	115,397,348	108,386,976
French.....	186,660,775	126,517,813
German.....		19,917,218
Italian.....	142,661,161	75,668,508
Japanese.....	140,348,145	36,004,988
Norwegian.....	244,277,565	158,416,411
Spanish.....	56,811,688	
All other.....	205,019,001	210,972,956
Total foreign.....	3,297,044,212	2,146,417,799

EXPORTS BY GREAT GROUPS

	1916 1915 Dollars Dollars	
	1916	1915
Crude material for use in manufacturing.....	536,189,752	510,455,540
Foodstuffs in crude condition, and food animals.....	380,799,902	507,003,179
Foodstuffs partly or wholly manufactured.....	596,071,882	454,565,404
Manufactures for further use in manufacturing.....	662,549,838	355,862,329
Manufactures ready for consumption.....	1,996,367,492	807,465,511
Miscellaneous.....	100,418,908	80,826,502
Total domestic exports.....	4,272,397,774	2,716,178,465
Foreign merchandise exported.....	61,261,091	52,410,875
Total exports.....	4,333,658,865	2,768,589,340

IMPORTS BY GREAT GROUPS

IMPORTS	1915	1916
Crude materials for use in manufacturing.....	\$575,357,144..	\$944,105,228
Foodstuffs in crude condition, and food animals.....	223,929,564..	251,833,794
Foodstuffs partly or wholly manufactured.....	285,725,091..	309,708,717
Manufactures for further use in manufacturing.....	237,176,522..	359,441,501
Manufactures ready for consumption.....	335,876,628..	315,353,634
Miscellaneous.....	16,164,791..	17,440,636
Total imports of merchandise.....	1,674,169,740..	2,197,883,510

EXPORTS OF DOMESTIC BREADSTUFFS, COTTONSEED OIL, FOOD ANIMALS, MEAT AND DAIRY PRODUCTS, COTTON, AND MINERAL OILS

EXPORTS BY GROUPS	1915	1916
Breadstuffs.....	\$415,989,616..	\$558,663,479
Cottonseed oil.....	22,515,718..	21,756,944
Cattle, hogs, and sheep.....	2,638,169..	875,120
Meat and dairy products.....	254,944,807..	200,182,672
Cotton.....	370,993,002..	376,214,487
Mineral oils.....	164,234,318..	132,042,624
Total.....	1,231,315,930..	1,289,735,326

EXPORTS BY PRINCIPAL ARTICLES

	12 months ending June 1915	1916
Corn.....	\$28,878,625..	37,694,473
Oats.....	47,805,095..	57,438,963
Wheat.....	214,833,820..	332,868,498
Flour.....	85,574,064..	93,575,180
Beef, canned.....	9,315,442..	11,965,057
Beef, fresh.....	28,884,178..	21,619,144
Beef, pickled, etc.....	4,021,395..	3,376,454
Oleo oil.....	12,519,110..	9,341,198
Bacon.....	78,003,324..	47,047,383
Hams and shoulders.....	40,528,480..	28,710,602
Lard.....	47,431,569..	52,166,007
Neutral lard.....	4,050,394..	3,022,321
Pork, pickled, etc.....	13,407,968..	5,322,887
Lard compounds.....	4,884,954..	5,656,359
Crude oil.....	5,709,059..	4,808,317
Illuminating oil.....	52,132,592..	53,409,313
Lubricating oil.....	37,022,972..	28,011,973
Gasoline, naphtha, etc.....	44,725,135..	27,103,501
Residium, fuel oil, etc.....	24,644,860..	18,709,520

AMERICAN PORTS IN FOREIGN TRADE, 1915-1916

The rank of the different domestic ports in handling the unprecedented foreign trade of the United States in the fiscal year ended June 30, 1916, is indicated by the following compilation prepared by the Bureau of Foreign and Domestic Commerce of the Department of Commerce.

The following table shows the total trade of the 10 leading customs districts as indicated by the commerce passing through the custom houses at their leading ports, with comparisons covering the fiscal years 1915 and 1916. The low position of certain great centers of trade and industry is due to the fact that imports destined for consumption in their area are to a large extent credited to the exterior ports of first arrival, while exports the product of one locality are often sold first to other domestic jobbing centers or forwarded to agents located on the seaboard or frontier.

Ports and districts	Total foreign trade		Imports		Exports	
	1916	1915	1916	1915	1916	1915
	(In millions of dollars)					
New York.....	3,518.	2,125.	1,192.	931.	2,326.	1,194.
Boston.....	342.	260.	211.	153.	131.	107.
New Orleans.....	301.	289.	90.	80.	211.	209.
Seattle-Tacoma.....	301.	136.	136.	68.	165.	68.
Philadelphia.....	294.	164.	96.	73.	198.	91.
Detroit.....	211.	143.	29.	25.	182.	118.
San Francisco.....	209.	158.	114.	76.	95.	82.
Baltimore.....	209.	157.	28.	25.	181.	132.
Galveston.....	198.	240.	8.	10.	190.	230.
Buffalo.....	172.	105.	36.	31.	136.	74.
Total, 10 districts.....	5,755.	3,777.	1,940.	1,472.	3,815.	2,305.
Total, all other.....	777.	666.	258.	202.	519.	464.
Grand totals.....	6,532.	4,443.	2,198.	1,674.	4,334.	2,769.

COMMERCE OF AMERICAN PORTS OR DISTRICTS HAVING EACH A FOREIGN TRADE OF LESS THAN \$100,000,000

Ports and districts	Total foreign trade		Imports		Exports	
	1916	1915	1916	1915	1916	1915
	(In millions of dollars)					
Norfolk-Newport News	121.	96.	13.	7.	108.	89.
Savannah	48.	78.	2.	3.	46.	75.
St. Lawrence R. ports	107.	60.	50.	28.	57.	32.
Chicago	36.	53.	27.	29.	9.	24.
Vermont ports	85.	47.	28.	18.	57.	29.
Dakota	56.	36.	17.	11.	39.	25.
Port Arthur	34.	30.	1.	1.	33.	29.
Maine & N. H. ports	33.	28.	10.	8.	23.	20.
Mobile	29.	26.	4.	5.	25.	21.
Tampa, Jacksonville and Pensacola	33.	25.	7.	7.	26.	18.
Portland, Oregon	13.	23.	2.	3.	11.	20.
Ohio (Cleveland-Toledo)	28.	21.	11.	8.	17.	13.
El Paso, Tex.	10.	17.	6.	9.	4.	8.
Charleston, S. C.	8.	16.	2.	3.	6.	13.
Duluth & Superior	18.	16.	8.	6.	10.	10.
North Carolina, Wilm'n	14.	13.	1.	2.	13.	11.
Honolulu, Hawaii	6.	6.	6.	6.	0.	0.
Porto Rico ports	9.	10.	3.	3.	6.	7.
Rochester	9.	8.	3.	3.	6.	5.
Arizona	22.	8.	15.	5.	7.	3.
Los Angeles	7.	7.	4.	5.	3.	2.
St. Louis	3.	6.	3.	6.	0.	0.
Laredo, Texas	17.	6.	9.	4.	8.	2.
Minnesota (except Duluth & Superior)	4.	4.	4.	4.	0.	0.
Connecticut	3.	4.	3.	4.	0.	0.
Montana & Idaho	5.	4.	2.	2.	3.	2.
Eagle Pass, Tex.	5.	3.	3.	2.	2.	1.
Pittsburgh	4.	2.	4.	2.	0.	0.
Rhode Island	2.	2.	2.	2.	0.	0.
Wisconsin	2.	2.	2.	2.	0.	0.
Alaska	2.	2.	1.	1.	1.	1.
Omaha	1.	1.	1.	1.	0.	0.
Louisville	1.	1.	1.	1.	0.	0.
Indianapolis	1.	1.	1.	1.	0.	0.
All other ports *	1.	1.	1.	1.	0.	0.

* Includes Denver, \$287,600 in 1915, \$202,500 in 1916; Iowa, \$226,500 in 1915, \$178,180 in 1916; Tennessee, \$126,500 in 1915, \$171,350 in 1916; and Utah and Nevada, \$63,000 in 1915, \$25,500 in 1916.

THE INCOME TAX IN FRANCE

France has an income tax law which became effective January 1st, 1915. By its provisions all net incomes up to 5,000 francs (\$1,000) are exempt from taxation. The scale is 2% on one-fifth of the net income between 5,000 and 10,000 francs (\$1,000 and \$2,000), two-fifths of the net income between 10,000 and 15,000 francs (\$2,000 and \$3,000) three-fifths of the net income between 15,000 and 20,000 francs (\$3,000 and \$4,000), four-fifths of the net income between 20,000 and 25,000 francs (\$4,000 and \$5,000), and five-fifths of the net income above 25,000 francs (\$5,000). There are deductions of 2,000 francs (\$400) if the taxpayer is married, 1,000 francs (\$200) for every person whom the taxpayer has to support up to the number of five, and 1,500 francs (\$300) for each beyond that number—these legal dependents being children under 21, or older if infirm; parents and grandparents, when infirm, or aged 70 or upwards. People are free to declare or not to declare their net incomes, but great advantages are offered to those who take the initiative by declaring in January or February their total incomes, with indication of family burdens, debts, etc., without needing to name the specific elements composing the income. If the declaration is not made by March 1st, the person receives a notice, in a sealed envelope, informing him that he may during March still make the declaration, but must now indicate the different elements composing the income; and if he persists in his silence, the Administration will assess him at a figure that it will indicate. Naturally, the Administration will adopt a figure higher than any probable income of the taxpayer, who to relieve himself of the burden will have to bring forward all his books and accounts. In other words, if the taxpayer makes a declaration, it will be for the Administration to prove, if it can, that this declaration is incorrect. If the Administration assesses, it will be for the taxpayer to prove that the assessment is too high.

FOREIGN COMMERCE

MERCHANDISE IMPORTED AND EXPORTED

Year ending June 30—	Exports.			Imports	Total exports and imports	Excess of exports over imports
	Domestic	Foreign	Total			
1891.....	\$872,270,283	\$12,210,527	\$884,480,810	\$844,916,196	\$1,729,397,006	\$39,564,614
1892.....	1,015,732,011	14,546,137	1,030,278,148	827,402,462	1,857,680,610	202,875,686
1893.....	831,030,785	16,634,409	847,665,194	866,400,922	1,714,066,116	*18,735,728
1894.....	869,204,937	22,935,635	892,140,572	654,994,622	1,547,135,194	237,145,950
1895.....	793,392,599	14,145,566	807,538,165	731,969,965	1,539,508,130	75,568,200
1896.....	863,200,487	19,406,451	882,606,938	779,724,674	1,662,331,612	102,882,264
1897.....	1,032,007,603	18,985,953	1,050,993,556	764,730,412	1,815,723,968	286,263,144
1898.....	1,210,291,913	21,190,417	1,231,482,330	616,048,654	1,847,531,984	515,432,676
1899.....	1,203,931,222	23,092,080	1,227,023,302	697,148,489	1,924,171,791	529,874,813
1900.....	1,370,763,571	23,719,511	1,394,483,082	849,941,184	2,244,424,266	544,541,898
1901.....	1,460,462,806	27,302,185	1,487,764,991	823,172,165	2,310,937,156	664,592,826
1902.....	1,355,481,861	26,237,540	1,381,719,401	903,320,948	2,285,040,349	478,398,453
1903.....	1,392,231,302	27,910,377	1,420,141,679	1,025,719,237	2,445,860,916	394,422,442
1904.....	1,435,179,017	25,648,254	1,460,827,271	991,087,371	2,451,914,642	469,739,990
1905.....	1,491,744,641	26,817,025	1,518,561,666	1,117,513,071	2,636,074,737	401,048,595
1906.....	1,717,953,382	25,911,118	1,743,864,500	1,226,562,446	2,970,426,946	517,302,054
1907.....	1,853,718,034	27,133,044	1,880,851,078	1,434,421,425	3,315,272,503	446,429,653
1908.....	1,834,786,357	25,986,989	1,860,773,346	1,194,341,792	3,055,115,138	666,431,554
1909.....	1,638,355,593	24,655,511	1,663,011,104	1,311,920,224	2,974,931,328	351,090,880
1910.....	1,710,083,998	34,900,722	1,744,984,720	1,556,947,430	3,301,932,150	188,037,290
1911.....	2,013,549,025	35,771,174	2,049,320,199	1,527,226,105	3,576,546,304	522,094,094
1912.....	2,170,319,828	34,002,581	2,204,322,409	1,653,264,934	3,857,587,343	551,057,475
1913.....	2,428,506,358	37,377,791	2,465,884,149	1,813,008,234	4,278,892,383	652,875,915
1914.....	2,329,684,025	34,895,123	2,364,579,148	1,893,925,657	4,258,504,805	470,653,491
1915.....	2,716,178,465	52,410,875	2,768,589,340	1,674,169,740	4,442,759,080	1,094,419,600
1916.....	4,272,397,774	61,261,091	4,333,658,865	2,197,883,510	6,531,542,375	2,135,775,355

*A deficit. During the Civil War and until 1874 there was an excess of imports over exports.

PERCENTAGE OF MERCHANDISE IMPORTED INTO AND EXPORTED FROM THE UNITED STATES

Grand Division	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915
	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>
Europe.....	50.32	48.39	51.63	52.10	50.91	49.88	51.76	50.30	49.57	49.25	47.29	36.70
	Imports.....	72.42	67.23	68.82	69.03	68.99	68.96	65.10	63.84	60.87	59.98	62.86
North America.....	20.06	20.33	19.19	18.37	20.00	19.36	19.69	20.00	20.20	19.96	22.57	28.26
	Imports.....	16.08	17.16	17.68	18.60	17.45	18.61	22.09	22.30	23.45	25.04	22.36
South America.....	12.14	13.49	11.45	11.17	10.46	12.49	12.59	11.96	13.01	12.01	11.76	15.61
	Imports.....	3.47	3.75	4.31	4.37	4.49	4.60	5.34	5.32	6.00	5.92	3.59
Asia.....	14.48	14.50	14.68	14.81	15.17	15.06	12.45	13.98	13.64	15.25	15.15	14.80
	Imports.....	4.12	8.46	6.05	4.93	5.47	4.32	3.49	4.17	5.33	4.67	4.80
Oceania.....	2.05	2.27	2.02	2.08	2.10	2.06	2.38	1.93	2.21	2.07	2.22	3.14
	Imports.....	2.25	2.18	2.02	2.19	2.51	2.49	2.92	3.22	3.26	3.21	3.53
Africa.....	.95	1.02	1.03	1.47	1.36	1.15	1.13	1.78	1.37	1.46	1.01	1.49
	Imports.....	1.66	1.22	1.12	.88	1.09	1.02	1.06	1.15	1.09	1.18	1.03

GLASS AS A SUBSTITUTE FOR STEEL

Near Frankfort, in Germany, there is a manufacturing plant which turns out glass poles for telephone and telegraph wires. In order to give them solidity and strength there is a thick framework of woven wire in the glass. These poles are taking the place of the wooden ones in many sections of Germany.

It may be that in time all such telegraph and telephone poles throughout the world will be made of glass, because there are so many advantages in them. In the first place they will last practically for all time, except in cases of unusual accident, where they may be broken, as in railroad wrecks. They will last even longer than iron or steel, as weather has practically no effect upon them, nor can insects get into them and destroy them.

And in these days, when wood is becoming more and more valuable, it will be quite a saving of the precious wood to make such things of glass. Experiments are also under way for the

manufacture of railroad ties of glass, in which wire netting is imbedded in the glass.

Paving blocks are made of glass and have proved to be a most valuable material for street surfaces, being fitted together in such a manner as to be watertight, no water running down between the blocks. There are, in Lyons, France, a number of streets paved with glass, and they have a better resistance than stone, and also are not such great conductors of heat as stone. These glass paving blocks are now said to be actually cheaper than the granite blocks.

Under the sea are ranges of mountains as huge, peaks as lofty, and chasms as deep, as any on land. In the Pacific there is one peak not many fathoms beneath the surface, which has its base five miles down on the ocean's bed.

ESTIMATES OF ANNUAL CONSUMPTION IN THE UNITED STATES

(From the Latest Available Statistics)

Product	Production *	Export of domestic	Domestic retained for consumption	Net imports	Total consumption	Per cent. Domestic product exported
Corn (bu.)	2,446,988,000	10,725,819	2,436,262,181	12,290,498	2,448,552,679	.44
Wheat (bu.)	763,380,000	145,590,349	617,789,651	1,630,952	619,420,603	19.07
Sugar (lbs.) (cane and beet)	2,067,876,880	96,862,462	8,793,794,928	4,950,828,070		
Cotton (bales)	13,982,811	9,256,028				65.45
Wool (lbs.)	290,192,000	335,348	289,856,652	246,444,034	536,300,686	
Coke (tons)	41,338,866	742,476	40,596,390	112,528	40,708,918	1.80
Coal, anthracite (tons)	81,718,680	3,959,114	77,759,566	8,124	77,767,690	4.84
Coal, soft (tons)	427,252,860	15,704,966	411,547,894	1,348,156	412,896,050	3.68
Pig Iron (tons)	30,966,182	201,995	30,764,137	136,046	30,900,203	.44
Railroad Bars (tons)	3,502,780	338,613	3,164,167	15,487	3,179,654	
Tin Plates (lbs.)	1,845,130,000	105,899,762	1,739,230,238	48,870,797	1,788,101,035	2.73
Flax seed (bu.)	17,853,000	305,546	17,547,454	8,653,235	26,200,689	
Coffee (lbs.)				1,006,362,294	992,550,993	
Tea (lbs.)				91,130,815		
Liquors (gal.)			2,233,436,612	18,836,153	2,252,272,765	†
Pulp wood (cord)					4,328,052	

* Does not include production of insular possessions. ‡ 52,418,430 gallons of this amount are made up of wines. † Total imports.

AMERICA'S TWENTY BEST CUSTOMERS

The following table is arranged to show the twenty heaviest buyers of American goods, as indicated by the value of exports from the United States during the fiscal years 1914 and 1915.

To	1915	Value	To	1915	Value	To	1914	Value
1 United Kingdom	\$911,794,954		15 Argentina	\$ 32,549,606		7 Cuba	\$ 68,884,428	
2 France	369,397,170		16 Germany	28,863,354		8 Belgium	61,219,894	
3 Canada	300,686,812		17 Brazil	25,629,555		9 Australasia	54,725,340	
4 Italy	184,819,688		18 Greece	23,499,646		10 Japan	51,205,520	
5 Netherlands	143,267,019		19 Belgium	20,662,315		11 Argentina	45,179,089	
6 Denmark	79,824,478		20 Panama	19,209,053		12 Mexico	38,748,793	
7 Sweden	78,273,818					13 Russia	31,303,149	
8 Cuba	75,530,382		To	1914	Value	14 Spain	30,387,569	
9 Russia	60,827,531		1 United Kingdom	594,271,863		15 Brazil	29,963,914	
10 Australasia	51,986,649		2 Germany	344,794,276		16 China	24,698,734	
11 Japan	41,517,780		3 Canada	344,716,981		17 Austria-Hungary	22,718,258	
12 Norway	39,074,701		4 France	159,818,924		18 Panama	22,678,234	
13 Spain	38,112,969		5 Netherlands	112,215,673		19 British Africa	18,960,770	
14 Mexico	34,164,447		6 Italy	74,235,012		20 Chile	17,432,392	

GROWTH IN IMPORTS AND EXPORTS OF GOLD ROMAN AND GREEK GODS AND GODDESSES

Year	Imports	Exports	Roman	Greek	Divinity of
1890	\$ 12,943,342	\$ 17,274,491	Apollo	Apollon	The sun
1900	44,573,184	48,266,759	Aurora	Eos	The dawn
1910	43,339,905	118,563,215	Æolus	Æolus	The winds
1912	48,936,500	57,328,348	Bacchus	Dyonysus	Wine
1913	69,194,025	77,762,622	Bellona	Enyo	War
1914	66,538,659	112,038,529	Ceres	Demeter	Harvest
1915	171,568,755	146,224,148	Cupid	Eros	Love
1916	494,009,301	90,249,548	Cybele	Rhea	Nature

GROWTH IN IMPORTS AND EXPORTS OF SILVER

Year	Imports	Exports	Roman	Greek	Divinity of
1890	\$ 21,032,984	\$ 34,873,929	Diana	Artemis	The chase
1900	35,256,302	56,712,275	Juno	Hera	Heaven
1910	45,217,194	55,286,861	Jupiter	Zeus	Heaven
1912	47,050,219	64,890,665	Mars	Ares	War
1913	41,268,516	71,614,311	Mercury	Hermes	Commerce
1914	30,326,604	54,965,023	Minerva	Athena	Wisdom
1915	29,110,326	50,942,187	Neptune	Poseidon	Sea
1916	34,154,375	59,791,523	Pluto	Hades	Lower world
			Saturn	Kronos	Agriculture
			Venus	Aphrodite	Love
			Vesta	Hestia	Purity
			Vulcan	Hephestus	Fire

IMMIGRATION TO THE UNITED STATES

Year ended June 30—	Total immigrants	Sex		Ages			Debarred from landing	Returned within 1 year after landing	Returned within 3 years after landing	Able to read, but not write*	Unable to read or write*
		Male	Female	Under 14 years	14 to 45 years	45 years and over					
1893.....	502,917	315,845	187,072	157,392	1419,701	\$25,824	1,053	577	.....	59,582	61,038
1894.....	314,467	186,247	128,220	141,755	1258,162	\$14,550	2,389	417	.....	16,784	41,614
1895.....	279,948	159,924	120,020	133,289	1233,543	\$13,116	2,394	189	.....	2,612	42,302
1896.....	343,267	212,466	130,801	152,741	1254,519	\$36,007	2,799	289	.....	5,066	78,130
1897.....	230,832	135,107	95,725	138,627	1165,181	\$27,024	1,617	263	.....	1,572	43,008
1898.....	229,299	135,775	93,524	138,267	1164,905	\$26,127	3,030	199	.....	1,416	43,057
1899.....	311,715	195,277	116,438	143,983	1248,187	19,545	3,798	263	.....	1,022	60,446
1900.....	448,572	304,148	144,424	54,624	370,382	23,566	4,246	363	.....	2,097	93,576
1901.....	487,918	331,055	156,863	62,562	396,516	28,840	3,516	363	.....	2,917	162,188
1902.....	648,743	466,369	182,374	74,063	539,254	35,426	4,974	547	.....	3,341	185,667
1903.....	857,046	613,146	243,900	102,431	714,053	40,562	8,769	300	479	3,953	168,903
1904.....	812,870	549,100	263,770	109,150	657,155	46,565	7,994	98	747	8,209	230,882
1905.....	1,026,499	724,914	301,585	114,668	855,419	56,412	11,879	61	615	4,755	265,068
1906.....	1,100,735	764,463	336,272	136,273	913,955	50,507	12,371	70	925	5,829	337,573
1907.....	1,285,349	929,976	355,373	138,344	1,100,771	46,234	13,064	114	1,955	2,310	172,293
1908.....	782,870	506,912	275,958	112,148	630,671	40,051	10,902	58	2,066	2,431	191,049
1909.....	751,786	519,969	231,817	88,392	624,876	38,517	10,411	23	2,672	4,571	253,569
1910.....	1,041,570	736,038	305,532	120,509	868,310	52,751	24,270	9	2,779	2,930	182,273
1911.....	878,587	570,057	308,530	117,837	714,709	46,041	22,349	16	2,386	3,024	177,284
1912.....	838,172	529,931	308,241	113,700	678,480	45,992	16,057	8	3,374	5,326	269,983
1913.....	1,197,892	808,144	389,748	147,158	986,353	64,379	19,938	30	4,365	3,074	260,152
1914.....	1,218,480	789,747	419,733	158,621	981,692	78,167	33,041	25	2,539	392	35,057
1915.....	326,700	187,021	139,679	52,982	244,472	29,246	24,111	1	1	1	1
1916.....	298,826	182,229	116,597	1	1	1	18,867	1	1	1	1

*For the years prior to 1895 the figures are for persons over 16 years; for years succeeding 1895, for persons 14 years of age and over. †Under 15 years. ‡\$15 to 40 years. §40 years and over. † Figures not available.

IMMIGRANTS ADMITTED (by race)

IMMIGRANTS ADMITTED (by race)—Continued

Years ended June 30				Race or people		1914	1915	1916
Race or people				1914	1915	1916		
African (black).....				8,447	5,660	4,576		
Armenian.....				7,785	932	964		
Bohemian, Moravian.....				9,928	1,651	642		
Bulgarian, Servian, Montenegrin.....				15,084	3,506	3,146		
Chinese.....				2,354	2,469	2,239		
Croatian, Slavonian.....				37,284	1,942	791		
Cuban.....				3,539	3,402	3,442		
Dalmatian, Bosnian, Herzegovinian.....				5,149	303	114		
Dutch, Flemish.....				12,566	6,675	6,443		
East Indian.....				172	82	80		
English.....				51,746	38,662	36,168		
Finnish.....				12,805	3,472	5,649		
French.....				18,166	12,635	19,513		
German.....				79,871	20,729	11,555		
Greek.....				45,881	15,187	26,792		
Hebrew.....				133,051	26,497	15,103		
Irish.....				33,898	23,303	20,636		
Italian (north).....				44,802	10,660	4,905		
Italian (south).....				251,612	46,557	33,909		
Japanese.....				8,941	8,609	8,711		
Korean.....				152	146	159		
Lithuanian.....				21,584	2,638	594		
Magyar.....				44,538	3,604	981		
Mexican.....				13,089	10,993	17,198		
Pacific Islander.....				1	6	5		
Polish.....				122,657	9,065	4,502		
Portuguese.....				9,647	4,376	12,208		
Roumanian.....				24,070	1,200	953		
Russian.....				44,957	4,459	4,858		
Ruthenian (Russniak).....				36,727	2,933	1,365		
Scandinavian.....				36,053	24,263	19,172		
Scotch.....				18,997	14,310	13,515		
Slovak.....				25,819	2,069	577		
Spanish.....				11,064	5,705	9,259		

CONGRESSIONAL APPROPRIATIONS, 1911-1916

Appropriated—	1st and 2nd sessions 61st Congress 1911	3rd session 61st Congress 1912	1st and 2nd sessions 62nd Congress 1913	3rd session 62nd Congress 1914	1st and 2nd sessions 63d Congress 1915	3rd session 63d Congress 1916
To supply deficiencies for the service of the various branches of the Government.....	\$23,045,612.11	\$10,028,526.84	\$ 8,505,587.25	\$27,080,512.29	\$24,028,999.41	\$11,399,025.69
For legislative, executive, and judicial expenses of the Government.....	34,158,767.00	35,378,149.85	34,245,356.75	35,172,434.50	37,630,781.37	36,904,799.75
For sundry civil expenses of the Government.....	106,015,198.82	135,241,935.34	102,538,934.40	106,749,532.01	103,080,275.74	122,940,750.79
For support of the army.....	95,440,567.55	93,374,755.97	90,958,712.98	94,266,145.51	101,019,212.50	101,959,195.87
For the naval service.....	131,410,568.30	126,405,509.24	123,151,538.76	140,718,434.53	144,868,716.61	149,661,864.88
For the Indian service.....	9,266,528.00	8,842,136.37	8,920,970.66	9,486,819.67	9,771,902.76	9,325,455.00
For rivers and harbors.....	49,380,541.50	30,883,419.00	40,559,620.50	51,118,889.00	26,989,000.00	33,982,000.00
For forts and fortifications.....	5,617,200.00	5,473,707.00	4,036,235.00	5,218,250.00	5,627,700.00	6,060,216.69
For support of Military Academy.....	1,856,249.87	1,163,424.07	1,064,668.26	1,099,734.87	997,899.54	1,069,813.37
For service of Post Office Department.....	Indefinite	Indefinite	Indefinite	Indefinite	Indefinite	Indefinite
For invalid and other pensions, including deficiencies.....	155,758,000.00	153,682,000.00	165,146,145.84	180,300,000.00	169,150,000.00	164,100,000.00
For consular and diplomatic service.....	4,116,081.41	3,988,516.41	3,638,047.41	3,730,642.66	4,309,856.65	4,040,446.66
For service of Department of Agriculture.....	13,487,636.00	16,900,016.00	16,648,168.00	17,986,945.00	19,865,832.00	22,971,782.00
For expenses of the District of Columbia.....	10,608,045.99	12,056,786.50	10,675,833.50	11,383,739.00	12,171,457.00	11,859,584.45
For reclamation fund.....	20,020,000.00					
For relief and miscellaneous.....	3,544,798.29	1,130,678.81	7,292,359.03	445,197.22	14,985,991.29	2,402,923.34
Total.....	663,725,794.84	634,549,561.40	617,382,178.34	684,757,276.26	674,497,625.16	678,677,858.70

PUBLIC DEBT OF THE UNITED STATES FOR LAST DECADE

Year	Total interest-bearing debt	Debt on which interest has ceased	Debt bearing no interest *	Outstanding principal	Cash in the Treasury July 1 †	Total debt less cash in Treasury
1905.....	\$895,158,340	\$1,370,245	\$1,378,086,478	\$2,264,003,585	\$1,284,748,291	\$ 989,866,771
1906.....	895,159,140	1,128,135	1,440,874,563	2,274,615,063	1,372,726,152	964,435,686
1907.....	894,834,280	1,086,815	1,561,266,966	2,337,161,839	1,578,591,306	878,596,755
1908.....	897,503,990	4,130,015	1,725,172,266	2,457,188,061	1,688,673,862	938,132,409
1909.....	913,317,490	2,883,855	1,723,344,895	2,626,806,271	1,615,684,710	1,023,861,530
1910.....	913,317,490	2,124,895	1,737,223,452	2,639,546,241	1,606,216,652	1,046,449,185
1911.....	915,353,190	1,879,830	1,848,367,586	2,652,665,838	1,749,816,268	1,015,784,338
1912.....	963,776,770	1,760,450	1,902,836,653	2,765,600,606	1,840,799,176	1,027,574,697
1913.....	965,706,610	1,659,550	1,948,838,753	2,868,373,874	1,887,640,858	1,028,564,055
1914.....	967,953,310	1,552,560	1,942,993,398	2,912,499,269	1,885,242,259	1,027,257,009
1915.....	969,759,090	1,507,260	2,086,570,522	3,058,136,873	1,967,988,867	1,090,148,006

* Includes certificates issued against gold, silver and currency deposited in the Treasury.

† Containing legal-tender notes, gold and silver certificates, etc.

COIN AND PAPER CIRCULATION IN THE UNITED STATES FOR LAST DECADE

Year ending June 30	Coin, including bullion in Treasury	United States notes and bank notes	Total money	Coin, bullion, and paper money in Treasury, as assets	Circulation	Population	Circulation per capita
1905.....	\$2,031,296,042	\$851,813,822	\$2,883,109,864	\$295,227,211	\$2,587,882,653	83,260,000	31.08
1906.....	2,154,797,215	915,179,376	3,069,976,591	332,329,963	2,736,646,628	84,662,000	32.32
1907.....	2,159,103,301	956,457,706	3,115,561,007	342,604,552	2,772,956,455	86,074,000	32.22
1908.....	2,328,767,087	1,049,996,933	3,378,764,020	340,748,532	3,038,015,488	87,496,000	34.72
1909.....	2,365,512,264	1,040,816,090	3,406,328,354	300,087,697	3,106,240,657	88,926,000	34.93
1910.....	2,355,807,734	1,063,783,749	3,419,591,483	317,235,876	3,102,355,605	90,363,000	34.33
1911.....	2,477,837,453	1,078,121,524	3,555,958,977	341,956,381	3,214,002,596	93,983,000	34.20
1912.....	2,554,125,643	1,094,745,008	3,648,870,651	364,357,557	3,284,513,094	95,656,000	34.34
1913.....	2,611,571,094	1,108,498,922	3,720,070,016	356,331,567	3,363,738,449	97,337,000	34.56
1914.....	2,638,496,956	1,099,791,915	3,738,288,871	336,273,444	3,402,015,427	99,027,000	34.35
1915.....	2,662,175,713	1,168,208,609	3,830,384,322	420,236,612	3,569,219,574	100,027,000	35.44

NOTE.—The Director of the Mint made a revised estimate of the stock of gold coin, and as a consequence, the estimated stock of gold in the United States and of gold coin in circulation has been reduced \$135,000,000 in the figures for 1907.

The Director of the Mint in 1910 made a revised estimate of the stock of subsidiary silver coin, and, as a consequence of such revision, there was a reduction of \$9,700,000.

RECEIPTS AND EXPENDITURES OF THE UNITED STATES

RECEIPTS AND THEIR SOURCES, 1911-1915

Source	1911	1912	1913	1914	1915
Customs revenue.....	\$314,497,071	\$311,321,672	\$318,891,396	\$292,320,015	\$209,786,673
Internal revenue.....	322,529,201	321,612,200	344,416,965	380,041,007	415,669,646
Miscellaneous (net).....	64,346,103	58,844,593	60,802,863	62,312,145	72,454,509
Ordinary receipts.....	701,372,375	691,778,465	724,111,230	734,673,167	697,910,828
Public-debt receipts.....	58,334,725	53,726,749	23,400,850	23,021,222	22,486,955
Total receipts, exclusive of postal.....	759,707,100	745,505,214	747,512,080	757,694,389	720,397,783
Postal revenues.....	237,879,824	246,744,016	266,619,526	287,934,566	287,248,165
Total receipts, including postal.....	997,586,924	992,249,230	1,014,131,606	1,045,628,955	1,007,645,948

DISBURSEMENTS AND THEIR OBJECTS, 1911-1915

Object	1911	1912	1913	1914	1915
Legislative.....	\$ 13,344,838	\$ 12,729,950	\$ 13,291,813	13,468,828	13,577,399
Executive:					
Executive, proper.....	734,603	923,979	592,015	564,134	† 3,065,881
State.....	4,902,175	4,676,384	4,978,380	5,253,912	4,908,607
Treasury.....	87,718,816	88,558,324	85,013,058	83,003,813	94,010,189
War.....	162,357,100	151,048,896	162,607,913	175,759,874	175,188,627
Navy.....	120,728,786	136,389,660	134,092,417	140,543,059	142,721,524
Interior.....	201,968,761	197,761,594	217,775,366	216,311,438	215,587,934
Post Office.....	1,812,594	3,461,232	3,196,710	2,236,202	8,531,466
Agriculture.....	17,666,228	19,471,567	20,469,028	22,208,141	29,131,112
Commerce*.....	18,503,443	14,466,998	11,263,457	10,958,882	11,499,099
Labor*.....			3,347,380	3,768,904	3,783,612
Justice.....	1,373,589	1,388,562	1,523,068	1,588,573	1,538,126
Independent bureaus and offices.....	2,555,974	2,388,838	2,878,326	3,232,180	5,738,774
District of Columbia.....	12,335,940	12,959,542	12,841,211	12,756,971	13,220,661
Total Executive.....	632,658,009	633,495,576	660,578,329	678,186,083	708,925,614
Judicial.....	8,135,151	8,328,437	8,900,564	8,599,579	8,896,746
Ordinary disbursements.....	654,137,998	654,553,963	682,770,706	700,254,490	731,399,759
Panama Canal disbursements.....	37,063,515	35,327,371	41,741,258	34,826,942	29,187,042
Public-debt disbursements†.....	35,223,337	28,648,628	24,191,610	26,961,327	17,253,491
Total, exclusive of postal paid from postal revenues.....	726,424,850	718,529,662	748,703,706	762,042,759	777,840,292
Postal revenues.....	237,660,705	246,744,016	262,108,875	283,558,103	278,248,165
Total disbursements, including postal...	964,085,555	965,273,678	1,010,812,449	1,045,600,862	1,065,088,457

*Department of Commerce and Labor prior to March 4, 1913, when the Department of Labor was created.

†Issues of certificates and notes not affecting the cash in general fund are excluded from the public-debt figures in this statement.

‡Includes \$2,498,618 for relief etc., of American citizens in Europe.

RECAPITULATION

	1911	1912	1913	1914	1915
Receipts.....	\$997,586,924	\$992,249,230	\$1,014,131,606	1,045,628,955	1,007,645,948
Disbursements.....	964,085,555	965,273,678	1,010,812,449	1,045,600,862	1,065,088,457
Excess of Receipts.....	33,501,369	26,975,552	3,319,157	28,093	(a) 57,442,509
Balance in general fund at close of fiscal year	\$140,396,044	\$167,371,596	\$170,690,753	161,612,616	104,170,106

(a) Excess of Disbursements

UNITED STATES CUSTOMS DUTIES

THE PRESENT TARIFF AND THE OLD COMPARED

Showing the Main Changes

Following are the present tariff rates on articles of common use or of extensive importation, placed by the Underwood-Simmons Act of 1913 compared with the rates placed by the Payne-Aldrich Act of 1909. Amounts given in dollars and cents are specific and the percentages are ad valorem duties. The abbreviation "n. s. p. f." means "not specially provided for."

	PAYNE LAW	PRESENT LAW		PAYNE LAW	PRESENT LAW
Acids			Caffeine.	25%.	\$1.00 lb.
boracic	3c. lb.	¾c. lb.	Calomel.	35%.	15%
citric	7c. lb.	5c. lb.	Camphor, crude	Free.	1c. lb.
lactic (cont. over 40% by wgt.)	3c. lb.	1½c. lb.	refined	6c. lb.	5c. lb.
oxalic	2c. lb.	1½c. lb.	Carbons for flaming arc lamps		30%
salicylic	2c. lb.	2½c. lb.	N. S. P. F.	20%	
tartaric	5c. lb.	3½c. lb.	Carpets		
Agricultural Implements	15%	Free	Aubusson, Axminster, moquette,		
Albumen, egg	3c. lb.	3c. lb.	and Chenille	60c. sq. yd. and 40%	35%
Albums, photograph, autograph,			Brussels	44c. sq. yd. and 40%	25%
scrap, stamp and postcard	35%	25%	tapestry Brussels	28c. sq. yd. and 40%	20%
Alcohol	\$2.60 gal.	\$2.60 gal.	velvet and tapestry	40c. sq. yd. and 40%	30%
methyl or wood	20%	Free	woven whole and Oriental, Ber-		
Ale, porter, stout, and beer, bottled			lin, Axminster, Aubusson, and		
or jugged	45c. gal.	45c. gal.	similar rugs 10c. sq. ft. and 40%		50%
Alkalies	25%	15%	Cartridges and shells, empty	30%	15%
Almonds, not shelled	4c. lb.	3c. lb.	Cash registers	30%	Free
shelled	6c. lb.	4c. lb.	Castor beans	25c. bu.	15c. bu.
Alum	¾c. lb.	15%	Cattle not one year old	\$2.00 per head	Free
Aluminum, crude	7c. lb.	2c. lb.	not worth over \$14 head	\$3.75 head	Free
plates, bars, etc	11c. lb.	3½c. lb.	worth over \$14 head	27¾%	Free
Amber	Free	\$1.00 lb.	Cement, Portland and hydraulic	8c. 100 lb.	Free
Ammonia, anhydrous	5c. lb.	2½c. lb.	Chalk, ground	1c. lb.	25%
carbonate of	1½c. lb.	¾c. lb.	Chamois skins	20%	15%
phosphate of (new item)		1c. lb.	Champagne, etc., ¼ to 1 pint		
Aniline oil and salts	Free	10%	bottles	\$4.80 doz.	\$4.80 doz.
Antimony, ore	1c. lb.	Free	Cheese and its substitutes	6c. lb.	20%
Anvils, iron or steel	1 5-8c. lb.	15%	Chloroform	10c. lb.	2c. lb.
Apples, peaches, pears	25c. bu.	10c. bu.	Chocolate, sweetened, worth over		
Attar of Roses	Free	20%	35c. lb.	50%	25%
Automobile bodies	45%	45%	worth over 24c. and not over		
chassis	45%	30%	35c. lb.	5c. lb. and 10%	12c. lb.
finished parts of	45%	30%	Cider	5c. gal.	2c. gal.
Automobiles, value under \$2,000	45%	30%	Cigars, cigarettes, and all kinds of		
value over \$2,000	45%	45%	cheroots	\$4.50 lb. & 25%	\$4.50 lb. & 25%
Bags, baskets, belts, satchels, card			Cinnamon	Free	1c. lb.
cases, pocketbooks, portfolios			China, clay	\$2.50 ton	\$1.25 ton
(leather)	40%	30%	manufactured	\$2.00 ton	\$1.00 ton
Bags, or sacks, made of plain woven			unmanufactured	\$1.00 ton	50c. ton
fabrics, or single jute yarns, not			Cloths, knit fabrics, felts not woven,		
colored, etc	7-8c. lb. and 15%	10%	and manufactures chiefly of wool		
Balsams, crude	Free	10%	N. S. P. F.		
Barley	30c. bu.	15c. bu.	(valued not over 40c. lb.)	33c. lb. & 50%	35%
Bay Rum	\$1.75 gal.	\$1.75 gal.	Cloves	Free	2c. lb.
Beads, spangles	35%	35%	Coal, bituminous and shale	45c. ton	Free
Beans	45c. bu.	25c. bu.	Coal tar dyes	30%.	15c. per lb. & 30%
Beans and peas, prepared	2½c. lb.	1c. lb.	Coal tar products	1Fr.	
Beef, veal, lamb, pork (fresh)	1½c. lb.	Free	Coca leaves	5c. lb.	10c. lb.
Beets, sugar (seed)	Free	Free	Cocaine	\$1.50 oz.	\$2.00 oz.
Berries, in natural state	1c. qt.	¼c. qt.	Cocoa butter and cocoanut oil	3½c. lb.	3½c. lb.
Bibles	25%	Free	Cod liver oil	15c. gal.	Free
Bicycles	45%	25%	Coke	20%	Free
Blacking	25%	15%	Combs, of horn or horn and metal	50%	25%
Blankets, wool	33c. lb. and 50% average	25%	Copper wares	45%	20%
Blasting Caps	\$2.25 per M.	\$1.00 per M.	Cordials, liqueurs, absinthe, and		
Books	25%	15%	spirituous beverages or bit-		
Boots and shoes of cattle skin	10%	Free	ters	\$2.60 pf. gal.	\$2.60 pf. gal.
Borax, refined	2c. lb.	1-8c. lb.	Cornmeal	40c. 100 lbs.	Free
Brandy	\$2.60 gal.	\$2.60 gal.	Cotton bagging, gunny cloth, etc.	6-10c. sq. yd.	Free
Bread, biscuit	20%	Free	Cotton waste	Free.	Free
Briar root and similar wood	15%	10%	Court-Plaster	Free.	Free
Brooms	40%	15%	Cranberries	25%	15%
Brushes, feather dusters, and hair			Crayons, charcoal	30%	15%
pencils	40%	35%	Cream, fresh	5c. gal.	Free
Buckwheat	15c. bu.	Free	Cream separators \$75 or under	15%	Free
flour	25%	Free	Currants	2c. lb.	1½c. lb.
Butter and its substitutes	6c. lb.	2½c. lb.	Curtains, table covers, cotton tapes-		
Cabbages	2c. ea.	15%	tries, and Jacquard upholstery		

* w. o. 20c. lb.

† (worth 20c. lb. or less.)

‡ Revenue act Sept. 5, 1916

	PAYNE LAW	PRESENT LAW
Damasks and woven articles of flax, hemp, ramie, etc.	45%	35%
Dates	1c. lb.	1c. lb.
Demijohns and Carboys	1c. lb.	30%
Diamonds, cut but not set and other precious stones in the rough	10%	20%
Dice, dominoes, checkers, chess, pieces, poker chips, pool, billiard, etc.	Free	10%
Dolls and toys	50%	50%
Drugs, barks, etc.	35%	35%
Eggs, frozen	¼c. & 10%	10%
other eggs	New item	2c. lb.
Emery wheels, paper and files	5c. doz.	Free
Engravings	25%	20%
Etchings	25%	15%
Fans, all kinds except palm	50%	50%
Feathers, artificial leaves, flowers, etc.	60%	60%
Feathers and downs, dressed	60%	40%
not dressed	20%	20%
Figs	2½c. lb.	2c. lb.
Filberts, not shelled	3c. lb.	2c. lb.
shelled	5c. lb.	4c. lb.
Files	53c. doz. average	25%
Filter tubes	35%	30%
Firebrick, glazed	35%	15%
unglazed	\$1.25 ton	10%
Firecrackers	8c. lb.	6c. lb.
Fishhooks, rods, tackle, except lines, nets and seines	45%	30%
Flax, hacked	3c. lb.	Free
not hacked	1c. lb.	Free
tow of	\$20.00 ton	Free
Floral Waters	20%	20%
Formaldehyde	New item	1c. lb.
Fruit, evaporated	2c. lb.	1c. lb.
Fuller's earth	\$1.50 ton	75c. ton
manufactured	\$3.00 ton	\$1.50 ton
Furs dressed on skin	20%	30%
Furs and fur skins, not dressed	Free	Free
Game birds	Free	30%
Gas mantles	40%	25%
Gelatin (not over 10c. lb.)	2½c. lb.	1c. lb.
Ginger ale and soda water in ½ pints	18c. doz.	12c. doz.
Glass, bottles	60%	45%
manufactures of N. S. P. F.	45%	30%
unpolished, cylinder, crown and common window, pieces not ex- ceeding 150 sq. in.		
(worth over 1½c. lb.)	1 3-8c. lb.	7-8c. lb.
above 150, not exceeding 384 sq. in.		
(worth over 1½c. lb.)	1 7-8c. lb.	1c. lb.
above 384, not exceeding 720 sq. in.		
(worth over 2 1-8c. lb.)	2 3-8c. lb.	1 1-8c. lb.
above 720, not exceeding 864 sq. in.	2½c. lb.	1½c. lb.
above 864, not exceeding 1200 sq. in.	3½c. lb.	1½c. lb.
above 1200, not exceeding 2400 sq. in.	3¾c. lb.	1 7-8c. lb.
above 2400 sq. in.	4¾c. lb.	2c. lb.
polished, cylinder and crown glass, pieces not exceeding 384 sq. in.		
	4c. sq. ft.	3c. sq. ft.
above 384, not exceeding 720 sq. in.		
	6 c. sq. ft.	4c. sq. ft.
above 720, not exceeding 1440 sq. in.		
	12c. sq. ft.	7c. sq. ft.
above 1440 sq. in.	15c. sq. ft.	10c. sq. ft.
polished plate, pieces not exceed- ing 384 sq. in.	10c. sq. ft.	6c. sq. ft.
above 384, not exceeding 720 sq. in.	12½c. sq. ft.	8c. sq. ft.
above 720 sq. in.	22½c. sq. ft.	12c. sq. ft.
rough plate (weighing 100 lbs. per 100 sq. ft. or less) pieces not exceeding 384 sq. in.	¾c. sq. ft.	¾c. sq. ft.
above 384, not exceeding 720 sq. in.	1½c. sq. ft.	1c. sq. ft.
above 720 sq. in.	1¾c. sq. ft.	1c. sq. ft.

	PAYNE LAW	PRESENT LAW
Glass, silvered and looking-glass plates, over 144 sq. in. and not over 384 sq. in.	11c. sq. ft.	7c. sq. ft.
above 384 sq. in. and not over 720 sq. in.	13c. sq. ft.	9c. sq. ft.
above 720 sq. in.	25c. sq. ft.	13c. sq. ft.
Stained or painted windows not exceed- ing 144 sq. in.	45%	30%
Glue (10c.)	2½c. lb.	1c. lb.
(10c. to 35c.)	25%	(10c. to 25c.) 15%
Glycerin, crude	1c. lb.	1c. lb.
refined	3c. lb.	2c. lb.
Gold leaf	35c. 100 leaves	35%
Grapes in packages	25c. cu. ft.	25c. cu. ft.
Grindstones	\$1.75 ton	\$1.50 ton
Gum arabic	Free	¾c. lb.
Gunpowder and Explosives, Value		
over 20c. lb.	4c. lb.	Free
value 20c. lb. or less	2c. lb.	Free
Hair, drawn, human	20%	20%
raw, human	Free	10%
Haircloth (Crimoline)	8c. sq. yd.	6c. sq. yd.
Handkerchiefs of flax, hemp, etc., hemstitched	55%	40%
flax, hemp, etc., not hemmed	50%	35%
silk, or mufflers, hemstitched	60%	50%
Harness and saddlery	35%	Free
Hay	\$4.00 ton	\$2.00 ton
Hemp, not hackled	\$22.50 ton	Free
hackled	\$45.00 ton	Free
Honey	20c. gal.	10c. gal.
Hooks and eyes, metallic	4¾c. & 15%	15%
Horn manufactures	35%	20%
Horses and mules, worth \$150.00 a head or less	\$30.00 a head	10%
worth over \$150.00 a head	25%	10%
Ink	25%	15%
Instruments, Surveying	45%	25%
Iodine	20c. lb.	Free
Iodoform	75c. lb.	15c. lb.
Iron bar	6-10c. lb.	5%
beams and other structural shapes of iron or steel	3-10c. lb.	10%
boiler plate (value 8-10c. lb. or less)	3-10c. lb.	12%
ore	15c. ton	Free
pig	\$2.50 ton	Free
scrap	\$1.00 ton	Free
sheet	6-10c. lb.	12%
tubes, pipes and flues	30%	20%
Iron or steel bands	3-10c. lb.	10%
bolts	1 1-8c. lb.	10%
Isinglass	25%	25%
Ivory or vegetable ivory manufac- tures	35%	35%
Ivory tusks, natural state	Free	20%
Jellies, all kinds	35%	20%
Jewelry	60%	60%
Laudanum	40%	60%
Lead bullion, dross or pigs	2 1-8c. lb.	25%
nitrate of	2½c. lb.	1½c. lb.
sheet	2 3-8c. lb.	25%
Lenses, glass	45%	25%
Licorice, extracts of	2½c. lb.	1c. lb.
Lime	5c. 100 lbs.	5%
Linoleum over 9 ft. wide	12c. sq. yd. & 15%	30%
Linotype machines	30%	Free
Lumber, sawed	\$1.25 M. ft.	Free
Macaroni	1½c. lb.	1c. lb.
Magnesia, carbonate of	3c. lb.	1½c. lb.
Mahogany and other cabinet woods, sawed	15%	10%
Malt, barley	45c. bu.	25c. bu.
Marble, dressed over 2" thick	\$1 cu. ft.	75c. cu. ft.
rough	65c. cu. ft.	50c. cu. ft.
paving tiles not over 1" thick	8c. ft.	6c. ft.
Maps	25%	15%
Masks	35%	25%
Matches, in boxes containing 100 or less	6c. gross	3c. gross
not in boxes of 100 or less	¾c. per M.	3-8c. per M.

	PAYNE LAW	PRESENT LAW		PAYNE LAW	PRESENT LAW
Matches, wind.....	35%	25%	Plaster of Paris manufacture.....	35%	25%
Microscopes.....	45%	25%	Plasters, healing or curative.....	25%	15%
Milk, condensed.....	2c. lb.	Free	Plates, steel, engraved, stereotype		
fresh.....	2c. gal.	Free	and electrolyte.....	20%	15%
Mineral waters ½ pint or less.....	20c. doz.	10c. doz.	stone, lithographic.....	50%	25%
Molasses (average) dutiable. To			Platinum wares.....	45%	50%
May 1, 1916.....	3c. gal.	2½c. gal.	Playing cards.....	10c. pack & 20%.	60%
After May 1, 1916.....		Free	Porch and window blinds of bamboo, etc. 35%.		20%
Morphine.....	\$1.50 oz.	\$3.00 oz.	Potash, bichromate of.....	2½c. lb.	¾c. lb.
Motorcycles.....	45%	25%	Potatoes.....	25c. bu.	Free
Musical instruments, pianoforte ac-			from countries imposing duty on		
tions and metal strings for same.....	45%	35%	American potatoes.....	25c. bu.	10%
Mustard.....	10c. lb.	6c. lb.	Poultry, preserved.....	5c. lb.	2c. lb.
Nets and nettings.....	60%	60%	live.....	3c. lb.	1c. lb.
Nickel sheets or strips.....	35%	20%	Powders, bleaching.....	1-5c. lb.	1-10c. lb.
wares.....	45%	20%	polishing.....	25%	15%
Nippers and pliers.....	8c. lb. & 40%	30%	Printing presses.....	30%	15%
Nutmegs, unground.....	Free	1c. lb.	Prints, lithographic not over 8-1000"		
Oatmeal and rolled oats.....	1c. lb.	30c. per 100 lbs.	thick.....	20c. lb.	15c. lb.
Oats.....	15c. bu.	6c. bu.	Prunes.....	2c. lb.	1c. lb.
Oil, castor.....	35c. gal.	12c. gal.	Quicksilver.....	7c. lb.	10%
Flaxseed and linseed.....	15c. gal.	10c. gal.	Quill manufactures.....	35%	20%
olive in bottles less than 5 gal.			Quilts of down and down goods.....	60%	40%
capacity.....	50c. gal.	30c. gal.	Quinces, cherries, plums.....	25c. bu.	10c. bu.
other olive.....	40c. gal.	20c. gal.	Raisins.....	2½c. lb.	2c. lb.
Oilcloths for floors. (9ft. wide or			Reeds, chair cane and rattan.....	10%	10%
less) 6c. sq. yd. & 15%.....		20%	Ribbons, hatbands, tassels, garters,		
Onions.....	40c. bu.	20c. bu.	suspenders, etc., silk.....	50%	45%
Onyx, rough.....	65c. cu. ft.	50c. cu. ft.	velvet and plush.....	\$1.75 lb. average.	50%
Opals and field glasses.....	45%	35%	Rice, cleaned.....	2c. lb.	1c. lb.
Opium, Crude.....	\$1.50 lb.	\$3.00 lb.	uncleaned.....	1½c. lb.	5-8c. lb.
dried.....	\$2.00 lb.	\$4.00 lb.	Rubber, India, manufactures known		
smoking.....	Prohibited	Prohibited	as druggists' goods.....	35%	15%
Paints, artists' colors.....	30%	20%	India, manufactures and gutta		
enamel.....	35%	15%	percha (N. S. P. F.).....	35%	10%
Paintings, oil or water colors, pas-			Saccharin.....	65c. lb.	65c. lb.
tels, pen and ink drawings.....	15%	15%	Safety fuses.....	35%	15%
Paper, copying, stereotype, tissue,			Saffron.....	Free	10%
crepe, pottery, etc.....	5c. lb. & 15%	30%	Salt in bags and packages.....	11c. 100 lbs.	Free
parchment.....	2c. lb. & 10%	25%	Salts, Epsom.....	1-5c. lb.	1-10c. lb.
photographic.....	3c. lb. & 10%	25%	Rochelle.....	3c. lb.	2½c. lb.
pressboards or press.....	35%	25%	Saws, circular.....	5c. per linear foot.	12%
printing, sized, unsized, etc.,			cross-cut.....	5c. per linear foot.	12%
value over 5c. lb.....	¾c. lb.	112%	drag.....	6c. per linear foot.	12%
under 5c. lb.....	¾c. lb.	15%	hand and other.....	25%	12%
surface-coated.....	5c. lb.	35%	steel band.....	5c. per lb. and 20%.	12%
wrapping, with decorated surface,	4½c. lb.	25%	Sculptures, professional productions		
writing letter, note, drawing			of sculptors only.....	15%	Free
japan, ledger and bond.....	3c. lb. & 15%	25%	Seeds, beet.....	4c. lb.	3c. lb.
Paper hangings with paper back.....	25%	25%	cabbage and kale.....	8c. lb.	6c. lb.
Papier-mâché manufactures.....	35%	25%	eggplant and pepper.....	20c. lb.	10c. lb.
Peanuts, shelled.....	1c. lb.	¾c. lb.	flaxseed.....	25c. bu.	20c. bu.
unshelled.....	¾c. lb.	3-8c. lb.	radish and turnip.....	4c. lb.	3c. lb.
Pearl, mother of, and shell manu-			Sewing machines.....	30%	Free
factures.....	35%	25%	Sheep over 1 year old.....	\$1.50 head.	Free
Peas in cartons.....	1c. lb.	1-3c. lb.	not 1 year old.....	75c. head.	Free
green or dried.....	25c. bu.	10c. bu.	Shingles.....	50c. M.	Free
split.....	45c. bu.	20c. bu.	Shells, engraved, etc.....	35%	25%
Pencils, lead, of paper or wood, 45c. gr. & 25%		36c. gr.	Shirts, collars and cuffs of cotton		
slate.....	(wood covered) 35%	25%	wholly and partly linen.....	45c. doz. & 15%	30%
Pens, fountain.....	30%	25%	Silk, partially manufactured from		
gold.....	25%	25%	cocoon or waste.....	35c. lb.	20c. lb.
Pepper, black and white, unground.....	Free	1c. lb.	spun.....	35c. lb.	35%
Percussion caps.....	30%	15%	Silver leaf.....	10c. 100 leaves	30%
Perfumery (containing alco-			wares.....	45%	50%
hol).....	60c. lb. & 50%	40c. & 60%	Slates and manufactures of.....	20%	10%
Pewter wares.....	45%	20%	Soap, castile.....	1½c. lb.	10%
Photographs, gramophones.....	45%	25%	medicinal toilet.....	20c. lb.	20%
Photographic dry plates.....	25%	15%	perfumed toilet.....	50%	30%
film negatives for moving pictures.....	25%	2c. ft.	other.....	20%	5%
Photographs.....	25%	15%	Soda, bicarbonate of.....	5-8c. lb.	¾c. lb.
Pickles and sauces.....	40%	25%	caustic.....	¾c. lb.	¾c. lb.
Pineapples in bulk.....	\$8.00 per M.	\$5 per M.	crystal carbonate of.....	¾c. lb.	1-8c. lb.
not in bulk.....	8c. cu. ft.	6c. cu. ft.	nitrate of.....	1c. lb.	1-8c. lb.
in own juice.....	25%	20%	sal.....	1-6c. lb.	1-8c. lb.
Pins, including hair, hat, etc.....	35%	20%	Spectacles and eyeglasses.....	45c. doz. & 20%	35%
Pipe, cast iron.....	¾c. lb.	10%	Sponges.....	20%	10%
meerschbaum, crude.....	Free	10%	manufactures of.....	30%	15%
tobacco, and bowls, of clay.....	15c. gross.	25%	Steam engines, locomotives.....	30%	15%
of other material, cigarette books,			Steel, shavings.....	40%	20%
tobacco pouches, cigarette paper					
and other smoking articles.....	60%	50%			

	PAYNE LAW	PRESENT LAW		PAYNE LAW	PRESENT LAW
Sticks and canes.....	40%	30%	Type metal.....	1½c. lb.	15%
Stockings, cotton.....	30%	20%	Typewriters.....	30%	Free
Stone, freestone, granite, sandstone, and other building or monument stone dressed.....	50%	25%	Umbrellas, parasols, etc., not paper, lace or embroidered.....	50%	35%
freestone, granite, sandstone, and other building or monument stone not dressed.....	10c. cu. ft.	3c. cu. ft.	Utensils, table, kitchen and hospital.....	40%	25%
Sugar.....	\$1.50 ton	50c. ton	Vanilla beans.....	Free	30c. lb.
Sugar, not above 75 degrees, 95-100c. lb.	75-100c. lb.	75-100c. lb.	Varnishes.....	25%	10%
Other degrees of quality receive a proportionate rate.			Vegetables, cut or pickled.....	40%	25%
candy and confectionery worth 15c. lb. or less.....	4c. lb. & 15%	2c. lb.	Velvets, plushes, chenilles or other pile fabrics.....	\$2.75 lb. average.	50%
candy and confectionery worth over 15c. lb.....	50%	25%	Vermuth and still wine containing under 14% alcohol or less.....	45c. gal.	45c. gal.
cane.....	20%	15%	Vinegar.....	7½c. gal.	4c. gal.
grape or glucose.....	1½c. lb.	1 1-8c. lb.	Walnuts, shelled.....	5c. lb.	4c. lb.
maple.....	4c. lb.	3c. lb.	not shelled.....	3c. lb.	2c. lb.
Sumac, extracts of.....	5-8c. lb.	3-8c. lb.	Watch cases and parts.....	40%	30%
Talcum powder.....	60%	15%	Watch and clock jewels.....	10%	10%
Tartar, cream of.....	5c. lb.	2½c. lb.	movements.....	\$1.35 each average.	30%
Telescopes.....	45%	25%	Whalebone, manufactures.....	35%	20%
Tile mantels, etc.....	60%	30%	Wheat.....	25c. bu.	Free
Tiles, ornamented.....	8c. sq. ft. to 10c. sq. ft. & 25%.....	5c. sq. ft. 1½c. sq. ft.	flour.....	25%	Free
plain exceeding 2 sq. in. in size.....	4c. sq. ft.	1½c. sq. ft.	Wheels, railway.....	1½c. lb.	20%
Tinsel wire.....	5c. lb.	6%	Willow, basketmakers'.....	25%	10%
Tobacco snuff and snuff flour.....	55c. lb.	55c. lb.	Wires, telegraph and telephone.....	40%	15%
scrap.....	55c. lb.	35c. lb.	Woods, unmanufactured (N. S. P. F.).....	20%	Free
wrapper, stemmed.....	\$2.50 lb.	\$2.50 lb.	Wood veneers.....	20%	15%
wrapper and filler, unstemmed.....	\$1.85 lb.	\$1.85 lb.	Wool, combed or tops.....	24½c. lb. & 30%	8%
Tools, machine.....	30%	15%	Yarns, wholly or chiefly wool. Note: new rate applies to all yarns. Old rate to yarns valued not over 30c. lb.....	27½c. lb. & 35%	18%
Toothpicks.....	2c. per M & 15%	25%	Zinc in blocks or pigs and zinc dust. 1 3-8c. lb.	1 5-8c. lb.	15%
Towels, quilts, blankets, mops, sheets, etc., cotton.....	45%	25%	in sheets.....	45%	20%
			wares.....	45%	20%

SYNOPSIS OF TARIFF LEGISLATION SINCE 1883

Mills Bill—Presented to 50th congress during Cleveland's first administration: provided for free lumber and wool, reduction on pig iron and abolition of specific duties on cotton; passed by house July 21, 1888, by vote of 162 to 149, but failed in senate; house democratic, senate republican.

McKinley Bill—Passed by 51st congress during Benjamin Harrison's administration; became law Oct. 6, 1890; high protective measure, though remitting duties on sugar and providing for reciprocity treaties; both houses of congress republican.

Wilson Bill—Passed by 53d congress during Cleveland's second administration; became law Aug. 17, 1894, without the president's signature; both houses democratic; measure reduced duties in some cases and made additions to free list, notably wool.

Dingley Bill—Passed by 54th congress during McKinley's administration; approved July 24, 1897; passed by house 205 yeas to 122 nays, 27 members not voting; passed by senate 38 yeas to 28 nays, 23 not voting; house contained 206 re-

publicans and 134 democrats and senate 46 republicans and 34 democrats: measure raised rates to produce more revenue, but was similar in many respects to the McKinley act.

Payne-Aldrich Bill—Passed at extra session of 61st congress in first year of President William H. Taft's administration: approved Aug. 5, 1909: passed the house by a vote of 217 to 161 and the senate by a vote of 45 to 34. The conference vote in the house was 195 yeas to 183 nays, twenty republicans voting in the negative and two democrats in the affirmative. In the senate the vote on the final conference report was 47 to 31, seven republicans voting against it. In general the revision of the Dingley act was in the direction of lower duties, but there were some increases.

Underwood-Simmons Bill—Passed by 63d congress at extra session called immediately after President Wilson's inauguration in 1913; house and senate democratic. The bill made many reductions in the tariff duties as fixed by the Payne-Aldrich law and placed numerous articles on the free list. It also contained a section establishing a tax on incomes.

FULLER'S EARTH

Fuller's earth was discovered in Florida in 1893 through mere accident. An effort was made to burn brick on the property of the Owl Cigar Co., near Quincy; the effort failed, but an employee of the company called attention to the close resemblance of the clay used to the German fuller's earth. Florida is now the leading State in the production of fuller's earth.

SOME FACTS ABOUT LIMESTONE

A ton of absolutely pure limestone would burn to a little over half its weight of lime, or about 1,120 pounds, which, counting 80 pounds to a bushel, would give 14 bushels of lime to a ton. The weight of the burned product, however, generally averages more than this, owing to impurities in the limestone and also because in ordinary kilns the combustion is not complete enough to drive off all the carbon dioxide.

A cubic foot of limestone averages in weight from 145 to 175 pounds, which would make a ton of limestone contain from 11 to 14 cubic feet.

A CURIOUS MINERAL

Perhaps the most curious mineral found in the United States is staurolite, otherwise known as the "fairy stone." This is an iron-aluminum silicate found only in Virginia and North Carolina, the reddish-brown and brownish-black crystals occurring in well-defined single and double crosses. There is some commercial demand for the crosses as curios, which are worn as watch charms or on chains in the manner of a locket or lavalier—a demand perhaps stimulated by the quaint legend which is told of their origin; the fairies living in the caves of the mountains, on hearing the sad tidings of the death of Christ, fashioned these crosses as mementos of Him.

POSTAL REGULATIONS

DOMESTIC MAIL.

First Class Matter (Letters, etc.)	2c. an ounce
Postal Cards	1c. each
Post Cards (Private Mailing Cards)	1c. each
Transient Second Class (Newspapers, Periodicals)	1c. for 4 ounces
Third Class (Circulars and Misc. Printed Matter)	1c. for 2 ounces
Fourth Class (Merchandise) (See Parcel Post)	Special rate determined by zones

Domestic postage rates apply to all mail transmitted between points in the United States and its possessions, to and from the United States postal agency at Shanghai, to United States navy men in our Naval Hospital at Yokohama; to letters only addressed to Great Britain, Ireland, Newfoundland, the Bahamas, Barbados, British Guiana British Honduras, Leeward Islands; Dutch West Indies including Aruba, Bonaire, Curacao, Saba, St. Eustatius, St. Martins; letters to Germany via steamers sailing to Germany ports direct. With certain exceptions domestic rates apply to mail addressed to Canada, Cuba, Mexico and the Republic of Panama.

Prepayment of postage is required.

Letters and reading matter for the blind are transmissible under certain conditions at special rates, which may be ascertained from the postmaster.

Husband or wife. Neither husband nor wife can control the delivery of mail addressed to the other against the wishes of the one to whom it is addressed. In the absence of instructions to the contrary, the wife's letters will be placed in the husband's box and delivered to him with his letters, unless they be known to live separately.

Minors. The delivery of mail addressed to a minor is subject to the orders of the parent or guardian upon whom the minor is dependent.

Lists of Names or Other Information. Postmasters and all others in the postal service are forbidden to furnish lists of names of persons receiving mail at their offices or give information as to the addresses, character, or standing of patrons.

Unmailable matter includes all matter having defective address, overweight or oversize, harmful in its nature, poisonous, explosive, inflammable, obscene, intended for indecent or immoral purpose, tending to incite arson or murder; bearing on outside cover defamatory, dunning or indecent language; unprepared; concerning lotteries or for the purpose of obtaining money under false pretenses; producing a bad odor; unwrapped post cards bearing particles of mica, glass, tinsel or similar substances; game killed or offered for mailing in violation of law, meat without certificate of inspection or exemption, nursery stock without certificate of inspection; live animals, fowls, insects, reptiles, intoxicating liquors.

Postage stamps are issued in 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 15, 20, 30, 50-cent and 1-dollar denominations and 10-cent special delivery. In smaller post-offices only those for which there is a demand are kept on sale. Stamps are issued in perforated or unperforated sheets, in coils of 500 and 1,000 perforated or unperforated, in books, and embossed on envelopes. When stamps are so affixed to mail that one overlies the other, concealing part of its surface, the covered stamp is not taken into account in prepayment.

Postal cards are issued singly, and in sheets for printing purposes; there are also reply postal cards, and international postal cards.

Stamped envelopes and newspaper wrappers are issued by the Post-Office Department.

Perforating of Stamps. For the purpose of identification only, and not for advertising, postage stamps may be punctured or perforated with letters, numerals, or other marks or devices, but the puncture or perforations shall not exceed 1-32 inch in diameter and the whole space occupied by the identification device shall not exceed 1/4 inch square.

Redemption. Uncanceled, unserviceable and spoiled postal cards are redeemable in postage stamps at 75% of their postage value; uncanceled and spoiled stamped envelopes and newspaper wrappers at their face value. Postage stamps are not redeemable from the public.

Copyright. Matter for copyright deposited with a postmaster for transmission to the Register of Copyrights, Washington, D. C., will be accepted for mailing free of postage; and when

requested a receipt therefor will be given on a form furnished by the sender. Such matter, however, may not be sent by registered mail without prepayment of the registry fee.

Alaska. All classes of mail for Alaska are dispatched from Seattle, Washington, during the season of navigation. During the winter season (from about October 1 to June 1), the dispatch of mail for Alaska, except for offices on the southern coast, is limited, preference being given first, to letters and postal cards; second, to single newspapers and magazines addressed to public libraries, newspaper publishers and to individuals. Books, catalogues, newspapers and periodicals sent to dealers for purpose of trade or otherwise, and merchandise (parcel post matter), can not be forwarded to interior offices during the winter season. But when the weight limit of mail for dispatch will permit, packages of seeds, not exceeding one pound per package, and articles of merchandise, not exceeding a few ounces each, as the proper officers of the service have reason to believe contain articles of urgent necessity, such as eyeglasses, medicines, etc., for individual use, may be included in the mails for dispatch.

The rate of postage on gold coin, gold bullion and gold dust offered for mailing between any two points in Alaska, or between any point in Alaska and any point in the United States or its possessions, is two cents an ounce or fraction thereof regardless of distance. Such gold coin, gold bullion, or gold dust must be included in sealed packages not exceeding eleven pounds in weight and sent by registered mail.

Canada, Cuba, Mexico and Panama. Articles of every kind or nature which are admitted to the domestic mails of the United States will be admitted under the same conditions to the mails for Canada, Cuba, Mexico, and the Republic of Panama, except commercial papers, which are admitted at 5c for first 10 ounces or less, and 1c for each additional 2 ounces or fraction of 2 ounces; and bona fide trade samples, which are admitted at 2c for the first 4 ounces or less, and 1c for each additional 2 ounces or fraction of 2 ounces, limit of weight 12 ounces. Packages of printed matter—other than second-class matter and single volumes of printed books—the weight of which exceeds four pounds six ounces, are excluded from mails for Canada, Cuba, Mexico, and the Republic of Panama, and sealed packages other than letters in their usual and ordinary form, are unmailable to those countries.

The rate on books and other printed matter is 1 cent for each 2 ounces or fraction thereof.

The postage rate applicable in the United States to "second-class matter," except daily newspapers mailed by publishers and news agents, addressed for delivery in Canada, is 1 cent for each four ounces or fraction of four ounces.

Concealed Matter. Matter of a higher class inclosed with matter of a lower class subjects the whole to the higher rate. Persons knowingly concealing or inclosing matter of a higher class in that of a lower class, for the purpose of evading payment of the proper postage, are liable to a fine of not more than \$100.

Domestic mail matter is divided into four classes—first, second, third and fourth (parcel post).

First-class matter includes written matter, namely: letters, postal cards, post cards (private mailing cards), and all matter wholly or partly in writing, whether sealed or unsealed (except manuscript copy accompanying proof-sheets or corrected proof-sheets of the same, and the writing authorized by law on matter of other classes). Also matter sealed or otherwise closed against inspection. The rate of postage is 2c for each ounce or fraction thereof; postal cards and post cards 1c each; "drop letters" addressed for delivery at the office where mailed, 1c for each ounce or fraction thereof when deposited at post-offices where carrier service is not established; letters to patrons served by rural or star route carriers, or deposited in boxes along such routes, 2c an ounce or fraction thereof. No drop rate on mail other than letters. Limit of weight of first-class matter is same as parcel post. First-class mail may be forwarded until it reaches addressee; other classes require a new prepayment of postage.

Second-class matter includes complete copies of newspapers and periodicals bearing notice of entry as second-class matter. (Incomplete copies are third-class.) Rate (unsealed) 1c for each 4 ounces or fraction thereof. No limit of weight. Wrapper and contents may bear written name and address of sender and addressee, the words "sample copy" or "marked copy," but other writing subjects the package to first-class rate.

DOMESTIC MAIL—Cont'd

Third-class matter embraces circulars, newspapers and periodicals not admitted to the second-class nor included in the term "book," miscellaneous printed matter, proof-sheets, corrected proof-sheets, manuscript copy accompanying same, matter in point-print or raised characters for the blind, valentines, sheet music, photographs, chromos, posters, lithographs and printed advertising matter on paper only. Rate (unsealed) 1c for each two ounces or fraction thereof. Limit of weight is 4 pounds. Parcels of printed matter weighing over 4 pounds which do not exceed limit of weight and size for fourth-class matter come within that class and are available at parcel post rates. Writing permitted as in second-class, also message similar to "Merry Christmas," "Do not open until Christmas," etc.

Special Delivery Service is the prompt delivery of mail by messenger during prescribed hours to persons who reside within the carrier limits of city delivery offices, to patrons of rural service who reside more than one mile from post-offices but within one-half mile of rural routes, and to residents within one mile of any post-office. Special delivery mail is not expedited in transit between post offices. This service is obtained by placing on any letter or article of mail a special delivery stamp or ten cents worth of ordinary stamps in addition to the lawful postage. When ordinary stamps are used the words "Special Delivery" must be placed on the envelope or wrapper, directly under but never on the stamps; otherwise the letter or article will not be accorded special delivery service. Hours of delivery are from 7 a. m. to 11 p. m. at city delivery offices, and from 7 a. m. to 7 p. m. at all other offices, or until after the arrival of the last mail, provided that be not later than 9 p. m. Special delivery matter will be delivered at post-offices of the first and second classes on Sunday, and at other offices if open on Sunday. Special delivery will be made at all offices on holidays. When special delivery mail can not be delivered for the reason that no one is present to receive it or for other cause, notice is left at the place of address and the mail returned to the post-office, and it is thereafter treated in all respects as ordinary mail.

MONEY ORDERS

Postal money orders should be used instead of cash, for remittances by mail. They are issued in amounts up to \$100; when a larger sum than \$100 is sent, any number of additional orders may be obtained. Fees for money orders payable in the United States (which includes Alaska, Hawaii and Porto Rico) and its possessions, comprising the Canal Zone, Guam, the Philippines, and Tutuila, Samoa; also for orders payable in Barbados, Bermuda, British Guiana, British Honduras,

Canada, Cuba, Martinique, Newfoundland, at United States postal agency in Shanghai, the Bahama Islands and in certain other islands in the West Indies, are:

Not over \$2.50	3c.	Over \$30 to \$40	15c.
Over \$2.50 to \$5	5c.	Over \$40 to \$50	18c.
Over \$5 to \$10	8c.	Over \$50 to \$60	20c.
Over \$10 to \$20	10c.	Over \$60 to \$75	25c.
Over \$20 to \$30	12c.	Over \$75 to \$100	30c.

Domestic money orders issued in continental United States (except Alaska) will be paid at any money order office in continental United States (except Alaska), within thirty days following date of issue. Thereafter payment will be made only at the office drawn on. A domestic order may be repaid at the office of issue within one year.

International money orders, payable in almost any part of the world, may be obtained at all the larger post-offices and many of the smaller ones, as the following rates:

For orders from 1c to \$10.00	10c
\$10.01 to \$20.00	20c
\$20.01 to \$30.00	30c
\$30.01 to \$40.00	40c
\$40.01 to \$50.00	50c
\$50.01 to \$60.00	60c
\$60.01 to \$70.00	70c
\$70.01 to \$80.00	80c
\$80.01 to \$90.00	90c
\$90.01 to \$100.00	\$1.00

REGISTERED MATTER

The registry system furnishes receipts to the mailer, and provides for indemnity in case of loss. Fee 10c in addition to postage, both prepaid. Any class of mailable matter may be registered (except fourth class, which may be insured) in the domestic mails, or in Postal Union mails (except foreign parcel post packages for Barbados, Curacao, Dutch Guiana, France, Great Britain, Gibraltar, Greece, Guadeloupe, Martinique, the Netherlands and Uruguay). Foreign parcel post mail must be taken to the post-office to be registered, but other mail may be registered at any post-office or post-office station, by rural carriers, and when sealed and not cumbersome (first-class), by city carriers in residential districts. Indemnity for value up to \$50 is paid for lost registered domestic mail, first-class (sealed); for third-class (unsealed), up to \$25; for value up to 50 francs (\$9.65) for loss of registered articles addressed to Postal Union countries, except foreign parcel post matter and losses beyond control.

PARCEL POST

LOCAL, FIRST AND SECOND

ZONE RATES

Weight	Local Rate	1st and 2nd Zone Rate	Weight	Local Rate	1st and 2nd Zone Rate	Weight	Local Rate	1st and 2nd Zone Rate
1 lb.	\$0.05	\$0.05	18 lb.	\$0.14	\$0.22	35 lb.	\$0.23	\$0.39
2 lb.	.06	.06	19 lb.	.14	.23	36 lb.	.23	.40
3 lb.	.06	.07	20 lb.	.15	.24	37 lb.	.23	.41
4 lb.	.07	.08	21 lb.	.15	.25	38 lb.	.24	.43
5 lb.	.07	.09	22 lb.	.16	.26	39 lb.	.24	.43
6 lb.	.08	.10	23 lb.	.16	.27	40 lb.	.25	.44
7 lb.	.08	.11	24 lb.	.17	.28	41 lb.	.25	.45
8 lb.	.09	.12	25 lb.	.17	.29	42 lb.	.26	.46
9 lb.	.09	.13	26 lb.	.18	.30	43 lb.	.26	.47
10 lb.	.10	.14	27 lb.	.18	.31	44 lb.	.27	.48
11 lb.	.10	.15	28 lb.	.19	.32	45 lb.	.27	.49
12 lb.	.11	.16	29 lb.	.19	.33	46 lb.	.28	.50
13 lb.	.11	.17	30 lb.	.20	.34	47 lb.	.28	.51
14 lb.	.12	.18	31 lb.	.20	.35	48 lb.	.29	.53
15 lb.	.12	.19	32 lb.	.21	.36	49 lb.	.29	.53
16 lb.	.13	.20	33 lb.	.21	.37	50 lb.	.30	.54
17 lb.	.13	.21	34 lb.	.22	.38			

RATES IN THIRD TO EIGHTH ZONES

Weight	3d Zone Rate 150-300 miles	4th Zone Rate 300-600 miles	5th Zone Rate 600-1000 miles	6th Zone Rate 1000-1400 miles	7th Zone Rate 1400-1800 miles	8th Zone Rate All over 1800 miles
1 lb.	\$0.06	\$0.07	\$0.08	\$0.09	\$0.11	\$0.13
2 lb.	.08	.11	.14	.17	.21	.24
3 lb.	.10	.15	.20	.26	.31	.35
4 lb.	.12	.19	.26	.33	.41	.48
5 lb.	.14	.23	.32	.41	.51	.60
6 lb.	.16	.27	.38	.49	.61	.72
7 lb.	.18	.31	.44	.57	.71	.84
8 lb.	.20	.35	.50	.65	.81	.96
9 lb.	.22	.39	.56	.73	.91	1.08
10 lb.	.24	.43	.62	.81	1.01	1.20
11 lb.	.26	.47	.68	.89	1.11	1.32
12 lb.	.28	.51	.74	.97	1.21	1.44
13 lb.	.30	.55	.80	1.05	1.31	1.56
14 lb.	.32	.59	.86	1.13	1.41	1.68
15 lb.	.34	.63	.92	1.21	1.51	1.80
16 lb.	.36	.67	.98	1.29	1.61	1.92
17 lb.	.38	.71	1.04	1.37	1.71	2.04
18 lb.	.40	.75	1.10	1.45	1.81	2.16
19 lb.	.42	.79	1.16	1.53	1.91	2.28
20 lb.	.44	.83	1.23	1.61	2.01	2.40

PARCEL POST—Cont'd

Fourth-class matter (domestic parcel post) includes merchandise, farm and factory products, seeds, cuttings, bulbs, roots, scions, and plants, books (including catalogues), miscellaneous printed matter weighing more than four pounds, and all other mailable matter not embraced in the first, second and third classes. Rates of postage—unsealed—are as follows:

(a) Parcels weighing 4 ounces or less, except books, seeds, plants, etc., 1c for each ounce or fraction thereof, any distance. (b) Parcels weighing 8 ounces or less containing books, seeds, plants, cuttings, bulbs, roots, and scions, 1c for each 2 ounces or fraction thereof, regardless of distance. (c) Parcels weighing more than 8 ounces containing books, seeds, plants, etc., parcels of miscellaneous printed matter weighing more than 4 pounds, and all other parcels of fourth-class matter weighing more than 4 ounces are chargeable, according to distance or zone, at the pound rates shown in the table on preceding page, a fraction of a pound being considered a full pound:

Alaska, Hawaiian and Philippine Islands, etc. The eighth zone rate of 12 cents for each pound or fraction thereof on all parcels weighing more than 4 ounces (except books, seeds, cuttings, bulbs, roots, scions, and plants, weighing 8 ounces or less), applies (1) between the United States and the Hawaiian Islands; (2) between the United States and its postal agency at Shanghai, China; (3) between any two points in Alaska and between any point in Alaska and any other point in the United States; (4) between the United States and the Canal Zone; (5) between the United States and the Philippine Islands; (6) to, from or between Guam, Tutuila and Manus and other islands of the Samoan group east of longitude 171° west of Greenwich, and the United States and its other possessions; (7) between the United States and its naval vessels stationed in foreign waters.

Canada, Cuba, Mexico and Panama. The rate of 12 cents for each pound or fraction thereof also applies to fourth-class matter, including seeds, cuttings, bulbs, roots, scions and plants (but excepting books and other printed matter) weighing more than 4 ounces and not exceeding 4 pounds 6 ounces, when mailed to Canada, Mexico, Cuba and Panama. Parcels weighing up to 11 pounds may be sent to Mexico and Panama as foreign parcel post mail.

Limit of Size. Parcel Post matter may not exceed 84 inches in length and girth combined. In measuring a parcel, the greatest distance in a straight line between the ends (but not around the parcel), is taken as its length, while the distance around the thickest part is taken as its girth. For example, a parcel 30 inches long, 15 inches wide and 10 inches high measures 80 inches, in length and girth combined.

Name and Address of Sender. A parcel of fourth-class matter may not be accepted for mailing unless it bears the name and address of the sender, which should be preceded by the word "from."

Additions to Fourth-Class Mail. The written additions permissible upon third-class matter also may be placed on fourth-class matter, together with any marks, numbers, names, or letters for purpose of description, or they may be placed on the wrapper or cover, tag or label. There may be written on the blank leaves or cover of any book a simple manuscript dedication or inscription not in the nature of personal correspondence.

Inclosures. There may be inclosed with fourth-class matter, invoice showing the name and address of the sender and of the addressee; the names and quantities of articles inclosed, together with inscriptions indicating "for purpose of description," the price, style, stock number, size, and quality of the articles; the order or file number, date of order, and date and manner of shipment; and the initials or name of the salesman, or of the person by whom the articles were packed or checked.

Inscriptions, such as "Merry Christmas," "With best wishes," "Do not open until Christmas," may be written on fourth-class mail, or on a card inclosed therewith.

COMMUNICATIONS ATTACHED TO PARCELS

When it is desired to send a communication with a parcel on which postage at the fourth-class rate has been fully prepaid, the communication may be placed in an envelope fully prepaid at the first-class rate and addressed to correspond with the address on the parcel and then be tied to or otherwise securely attached to the outside of the parcel in such manner as to prevent its separation therefrom and not to interfere with the address on the parcel. The stamps to cover the postage on the

parcel must be affixed to the wrapper of the parcel, and those to pay the postage on the communication must be affixed to the envelope of the communication (applies also to third-class matter). Parcels to which such communications are attached are treated as fourth-class matter. Only one special-delivery fee is required on such parcels sent as special-delivery matter.

Proprietary Articles of Merchandise, such as harmless medicinal preparations, soaps, tobacco, food products, etc., put up in fixed quantities, in original sealed packages by the manufacturer so as to allow examination, and labeled in printing so as to show the nature of contents, quantity, and name of the manufacturer, are mailable at the fourth-class rates of postage. If such sealed packages are inclosed in an outer wrapper, the latter must not be sealed.

Place of Mailing. Parcels of books, seeds and plants, weighing more than 8 ounces and parcels of other fourth-class matter weighing more than 4 ounces must be mailed at a post-office, branch post-office, named, numbered or lettered station, or delivered to a rural or other carrier duly authorized to receive such matter. Smaller parcels may be deposited in letter or package boxes.

INSURANCE OF FOURTH-CLASS MAIL

Fees and Conditions. Fourth-class mail shall not be registered, but may be insured against loss in an amount equivalent to its actual value, but not to exceed \$5.00 in any one case, on payment of a fee of 3 cents; not to exceed \$25.00 on payment of a fee of 5 cents; not to exceed \$50.00 on payment of a fee of 10 cents, or not to exceed \$100.00 on payment of a fee of 25 cents, in addition to the postage, both to be prepaid by stamps affixed; but indemnity will not be allowed in cases of loss of such mail addressed to the Philippine Islands, unless the loss occurred in the postal service of the United States. Such mail may be insured at any post-office or station thereof, or by rural carriers. Return receipts for insured parcels may be obtained by indorsing the parcels and tags "Return receipt desired." Indemnity for lost insured parcels is paid for their actual value within the limit of insurance. No indemnity is payable on account of mere partial damage. An article so damaged as to render it wholly worthless is regarded as lost, provided it was packed and indorsed in accordance with the postal requirements.

COLLECT-ON-DELIVERY SERVICE

Conditions and Fee. Parcels of fourth-class or parcel post matter (but no other) may be sent C. O. D. from one United States money order post-office to another, excepting those in the Philippine Islands, on payment of a fee of 10 cents in addition to the postage, both to be prepaid with stamps affixed. Amount to be collected and remitted to the sender must not exceed \$100. Remittance is made by post-office money order, fee therefor being included in the amount collected from the addressee. The C. O. D. fee also covers insurance against loss. Examination of contents of C. O. D. parcels is not permitted.

Indemnity for Lost C. O. D. Parcels is paid for the actual value not to exceed \$50, under the conditions governing the payment of indemnity for lost insured parcels.

PREPARATION AND WRAPPING OF MAIL MATTER FOR PARCEL POST

Nailed Boxes. Parcel post mail may be inclosed in boxes to which the lids are nailed or screwed, provided the lids can be readily removed with a chisel or screw-driver for examination of contents.

Wrapping. All matter should be securely wrapped so as to bear transmission without breaking, or injuring mail bags, their contents or the persons handling them.

Parcels weighing twenty pounds or under are generally carried inside mail bags with other mail; those weighing over twenty pounds are usually carried outside mail bags. They should be wrapped with that understanding.

Parcels improperly or insufficiently wrapped will not be accepted for transmission in the mails.

Umbrellas, canes, golf-sticks and similar articles must be reinforced by strips of wood or otherwise sufficiently wrapped.

Hats must be packed in strong boxes; if in ordinary paste-board hat boxes, they must be properly crated.

PARCEL POST—Cont'd

Cut flowers, candies, etc., should be inclosed in strong boxes. *Stove castings and pieces of machinery* should be protected with excelsior or similar material and wrapped in cloth or strong paper or be properly boxed or crated.

Mailable hides and pelts must be thoroughly wrapped to prevent the escape of grease.

Harmful articles not absolutely excluded from the mails, but which, from their form or nature, might, unless properly secured, destroy, deface, or otherwise damage the contents of the mail bag, or harm the person of any one engaged in the postal service, may be transmitted in the mails only when packed in accordance with the postal regulations.

Sharp-pointed or sharp edged instruments or tools must have their points and edges protected so that they can not cut through their covering, and be thoroughly wrapped.

Powders and all pulverized dry substances must be so wrapped that none of the contents of the package will sift out.

Pastes, salves, etc., not easily liquefiable, must be inclosed in water-tight containers and placed in strong boxes and securely wrapped.

Liquids. Admissible liquids in packages not exceeding the limit of weight of fourth-class matter will be accepted for mailing when intended for delivery at the office of mailing or on a rural route starting therefrom when inclosed in a glass or metal container securely inclosed and heavily wrapped, provided it is not necessary to transport them over steam or electric railways.

Admissible liquids and oils, pastes, salves or other articles easily liquefiable, will be accepted for mailing, regardless of distance, when they conform to the following conditions:

(a) *When in strong glass bottles holding 4 ounces or less,* the total quantity sent in one parcel shall not exceed 24 ounces, liquid measure. Each bottle shall be wrapped in paper or other absorbent substance and then all placed in a box made of cardboard or other suitable material and packed in a container made of double-faced corrugated pasteboard of good quality. The corners of the container must fit tightly and be reinforced with tape so as to prevent the escape of any liquid if the contents should be broken, and the whole parcel shall be securely wrapped with strong paper and tied with twine. Single bottles of liquid holding 4 ounces or less may also be packed as prescribed in the following paragraphs (b) and (c):

(b) *When in glass bottles holding more than 4 ounces,* the total quantity sent in one parcel shall not exceed 16 ounces, liquid measure. The bottle must be very strong and must be inclosed in a block or tube of metal, wood, papier-mache or similar material; and there must be provided between the bottle and the block or tube a cushion of cotton, felt or other absorbent. The block or tube, if of wood or papier-mache, must be at least one-eighth of an inch thick for bottles holding 8 ounces or less, and at least three-sixteenths of an inch thick for bottles holding more than 8 ounces. The block or tube must be rendered water-tight by an application on the inside of paraffin or other suitable substance and must be closed by a screw-top cover with sufficient screw threads to require at least one and one-half complete turns before it will come off. The cover must be provided with a washer, so that no liquid could escape if the bottle should be broken. Any number of bottles separately packed as herein prescribed may be included in a single package if the limit of weight and size for fourth-class matter be not exceeded.

(c) *Bottles containing liquid* may also be packed in strong and tight receptacles of wood, metal or waterproof corrugated pasteboard. Space must be left all around the bottle, which must be filled with bran, sawdust or other absorbent material in sufficient quantity to absorb all the liquid if the bottle should get broken.

(d) *When in a metal container,* the weight limit of the parcel is the same as for other fourth-class matter. The container must be securely sealed and inclosed in a strong box.

(e) *When in parcels weighing more than twenty pounds,* mailable liquids in securely-sealed glass bottles or metal cans will be accepted for mailing to offices in the first and second zones when packed in strong boxes and surrounded with sawdust or other suitable substance to protect the contents from breakage. All such packages to be marked "FRAGILE—THIS SIDE UP" or with similar inscription, and to be transported outside of mail bags.

All packages containing liquid must be marked "FRAGILE." *Fragile Articles.* Articles easily broken must be very securely wrapped for safe transmission.

Glass, crochery, fragile toys, etc., must be so packed as to prevent the escape of particles or pieces from the packages if broken in transit.

Cigars should be packed in a manner to prevent damage by shock or jar.

Maps, drawings, paintings, etc., must be suitably protected with stout material to prevent damage. When not flat, they should be rolled around a stout stick and carefully wrapped or inclosed in a strong pasteboard tube.

All such articles should be marked "FRAGILE."

Eggs will be accepted for local delivery when so packed in a basket or other container as to prevent damage to other mail.

Eggs will be accepted for mailing regardless of distance, when each egg is separately wrapped and surrounded with excelsior, cotton or other suitable material and packed in a strong container made of double-faced corrugated pasteboard, metal, wood or other suitable material and wrapped so that nothing can escape from the package. All such parcels shall be labeled "EGGS."

Eggs in parcels weighing more than twenty pounds will be accepted for mailing to offices in the first and second zones when packed in crates, boxes, buckets or other containers having tight bottoms to prevent the escape of anything from the package and so constructed as properly to protect the contents. Such packages to be marked "EGGS—THIS SIDE UP" and to be transported outside of mail bags.

Perishable Articles. Parcels containing perishable articles shall be marked "PERISHABLE." Articles likely to spoil within the time reasonably required for transportation and delivery shall not be accepted for mailing.

Butter, lard and perishable articles such as fish, fresh meats, dressed fowls, vegetables, fruits, berries, and articles of a similar nature which decay quickly, when so packed or wrapped as to prevent damage to other mail, will be accepted for local delivery either at the office of mailing or on any rural route starting therefrom. When inclosed in an inner cover and a strong outer cover of wood, metal, heavy corrugated pasteboard, or other suitable material, and wrapped so that nothing can escape from the package, they will be accepted for mailing to all offices to which in the ordinary course of mail they can be sent without spoiling.

Butter, dressed fowls, vegetables, fruits, and other perishable articles in parcels weighing more than twenty pounds will be accepted for mailing to offices in the first and second zones when suitably wrapped or inclosed and packed in crates, boxes or other suitable containers having tight bottoms to prevent the escape of anything from the package and so constructed as properly to protect the contents. All such parcels to be transported outside of mail bags.

Vegetables and fruits which do not decay quickly will be accepted for mailing to any zone if packed so as to prevent damage to other mail.

POSTAL SAVINGS SYSTEM

Purpose. The Postal Savings System provides facilities for depositing savings at interest, with the security of the United States Government for repayment.

Service Free. No charge or fee is collected or required in connection with the opening of an account or the subsequent deposit or withdrawal of money. The proper money order fee is charged, however, when withdrawals are made by mail.

Deposits. Any person of the age of ten years or over may become a depositor. The account of a married woman is free from the control or interference of her husband. No person can have more than one account at the same time.

An account can not be opened for less than \$1, nor can fractions of \$1 be deposited or withdrawn. Amounts less than \$1 may, however, be saved by the purchase of 10-cent postal savings cards and adhesive 10-cent postal savings stamps. A postal savings card with nine postal savings stamps affixed will be redeemed in cash for \$1, or will be accepted as a deposit of \$1 either in opening an account or adding to an existing account. No person is permitted to have a balance to his credit at one time of more than \$1,000, exclusive of interest. An account may be opened through a representative, or by mail.

POSTAL SAVINGS SYSTEM—Cont'd

When a patron of a post-office not designated as a postal savings depository desires to open a postal savings account by mail, he should apply to his local postmaster, who will make the necessary arrangements. After an account is opened deposits may be made through a representative or by mail.

Certificates of Deposit. Depositors receive postal savings certificates covering the amount of each deposit made. These certificates are issued in fixed denominations of \$1, \$2, \$5, \$10, \$20, \$50 and \$100, and are valid until paid, without limitation as to time. Postmasters are not permitted to receive savings certificates for safekeeping.

Interest. Interest will be allowed on all certificates at the rate of 2 per cent for each full year that the money remains on deposit, beginning on the first day of the month following the month in which the deposit is made. Interest continues to accrue on deposits as long as the certificates remain outstanding.

Withdrawals. A depositor may at any time withdraw the whole or any part of his deposits, with any interest payable,

by surrendering at his depository office savings certificates properly indorsed, covering the desired amount. Withdrawals may also be made through a representative or by mail.

Bonds. Any depositor may, under certain conditions, exchange the whole or any part of his deposits, in sums of \$20 or any multiple of \$20 up to and including \$500, for United States coupon or registered bonds, bearing interest at the rate of 2½ per cent, such bonds to be exempt from all taxes or duties of the United States as well as from taxation in any form by or under State, municipal, or local authority. Postal savings bonds are not counted as part of the balance of \$1,000 allowed to one depositor. On the application of any holder these bonds will be purchased at par by the Board of Trustees of the Postal Savings System.

Information. Further information concerning the Postal Savings System may be obtained by applying at any depository post-office or by addressing the Third Assistant Postmaster General, Division of Postal Savings, Washington, D. C.

FOREIGN MAIL MATTER

RATES OF POSTAGE

The rates of postage applicable to articles for foreign countries are as follows:

Letters for the Bahamas, Barbados, British Guiana, British Honduras, Canada, Cuba, Dutch West Indies (including Aruba, Bonaire, Curacao, Saba, St. Eustatius, St. Martins), Leeward Islands, Mexico, Republic of Panama, city of Shanghai (China), England, Ireland, Newfoundland, Scotland and Wales, per ounce..... 2

*Letters for Germany by direct steamers, per ounce..... 2

Letters for all other foreign countries, and for Germany when not dispatched by direct steamers:

For the first ounce or fraction of an ounce..... 5

For each additional ounce or fraction of an ounce..... 3

Single post cards (including souvenir cards), each..... 2

Reply postal cards, each..... 4

Printed matter of all kinds, for each two ounces or fraction of two ounces..... 1

Commercial papers, for the first ten ounces or less..... 5

For each additional two ounces or fraction of two ounces..... 1

Samples of merchandise, for the first four ounces or less..... 2

For each additional two ounces or fraction of two ounces..... 10

Registration fee in addition to postage..... 10

For rates on International Money Orders and Registered Matter see first page, "Domestic Mail."

CLASSIFICATION

Articles for or from foreign countries (except Canada, Cuba, Mexico and the Republic of Panama, and the United States Postal Agency at Shanghai) are classified as "Letters," "Post Cards," "Printed Matter," "Commercial Papers" and "Samples of Merchandise." There is no provision in the Postal Union mails for merchandise other than samples.

Letters. When a package is prepaid in full at the letter rate it is treated as letter mail. Such packages may contain merchandise not sent as trade samples. Sealed or unsealed packages which appear to contain dutiable matter will be inspected by customs officers of the country of destination and the proper customs duties will be levied.

Postal Cards. The United States international 2-cent single and reply postal cards should be used for correspondence with foreign countries, except Canada, Cuba, Mexico, the Republic of Panama, and Shanghai, to which the domestic 1-cent single and reply postal cards are mailable.

Private mailing cards are transmissible to foreign countries at the rate of 2 cents each. If entirely in print and bearing no personal message, they may be sent at the rate of 1 cent each. Those addressed to Canada, Cuba, Mexico, Republic of Panama, and Shanghai may be sent at 1 cent each.

Printed Matter. The rate of postage on printed matter in the foreign mails is one cent for each two ounces.

Commercial Papers. This class includes all instruments or documents written or drawn wholly or partly by hand, which have not the character of an actual and personal correspondence.

Samples of Merchandise. Packages of miscellaneous merchandise in the regular mails for foreign countries (except Canada)

*The 2-cent rate to Germany is suspended for the present.

ada, Cuba, Mexico, Republic of Panama and Shanghai) are restricted to bona fide samples or specimens having no salable or commercial value in excess of that actually necessary for their use as samples or specimens.

Samples of merchandise must conform to the following conditions:

(1) They must be placed in bags, boxes or removable envelopes in such a manner as to admit easy inspection.

(2) They must not have any salable value nor bear any manuscript other than the name or profession of the sender, the address of the addressee, a manufacturer's or trade mark, numbers, prices and indications relating to the weight or size of the quantity to be disposed of, and words which are necessary to indicate precisely the origin and nature of the merchandise. Packages of samples of merchandise must not exceed twelve ounces in weight, twelve inches in length, eight inches in breadth and four inches in thickness.

Permissible Additions and Inclosures. Packets of printed matter, commercial papers, and samples must not contain any letter or manuscript note having the character of an actual and personal correspondence, and must be made up in such manner as to admit of being easily examined. The following manuscript additions may be made to "prints." The name, business, and residence of the sender; to visiting cards, the title and address of the sender, and congratulations, thanks, etc., not to exceed five words; the date of dispatch; the necessary corrections on proofs of printing, and the "copy" may be inclosed with the proof; correction of errors in printing other than proof; the erasure and underscoring of certain words; the insertion or correction of figures in price lists, advertisements, trade circulars, and prospectuses; the insertion of the name of the traveler, the date and place of his intended visit, in notices concerning the trips of commercial travelers; the dates of sailing on notices relating to the sailing of vessels; the name of the person invited, the date, object, and place, on cards of invitation and notices of meetings; a dedication on books, journals, photographs, Christmas and New Year's cards; fashion plates, maps, etc., may be painted; to cuttings from journals, the title, date, number and address of the journal from which they were cut may be added; an invoice may be attached to the article to which it relates.

Manuscript additions other than those above indicated, and those which would deprive the print of its general character and give to it that of individual correspondence, are prohibited upon "prints."

It is permitted to inclose in the same package samples of merchandise, prints, and commercial papers, but subject to the following conditions: (1) That each class of articles taken singly shall not exceed the limits which are applicable to it as regards weight and size. (2) That the total weight of the package must not exceed four pounds six ounces. (3) That the minimum charge shall be 5 cents when the package contains commercial papers, and 2 cents when it consists of printed matter and samples.

Return Postage. There may be purchased at a post-office for 6 cents a reply-coupon, by means of which a person in the United States can furnish his correspondent in certain foreign countries with a postage stamp with which to prepay postage

FOREIGN MAIL MATTER—Cont'd

on a reply. The countries in which the reply-coupon is valid may be ascertained upon inquiry at a post-office.

Reply-coupons issued by other countries are redeemable at United States post-offices in postage stamps to the value of five cents for each reply-coupon.

Prohibited Articles. All articles not admissible to the domestic mails are excluded also from the foreign mails.

The transmission of the following articles is absolutely prohibited in the mails for foreign countries under any circumstances; viz., publications which violate the copyright laws of the country of destination; packets (except single volumes of printed books for Canada, Cuba, Mexico, the Republic of Panama, Shanghai, and Salvador, and second-class matter for Canada, Cuba, Mexico, the Republic of Panama and Shanghai) which exceed four pounds, six ounces in weight; and letters or packages containing coin, gold or silver substances, jewelry or precious articles. This prohibition against coin, etc., does not apply to Canada, Cuba, Mexico, the Republic of Panama, Shanghai, or those countries whose legislation does not prohibit their circulation in their domestic mails. So far as the Post-office Department has been advised, the conditions prescribed prevent the forwarding of the articles referred to in the mail for any country of the Postal Union except Canada, Cape Colony, Colombia, Denmark, Germany and the German Protectorates, Great Britain and certain British Colonies, Luxemburg, Peru and Siam.

Prohibited articles, if mailed sealed against inspection, will not be delivered, although they reach their destination.

Miscellaneous Conditions. Wrapping. All matter to be sent in the mails at less than the letter rates of postage must be wrapped securely and in such manner that it can easily be examined.

Postage Due. Letters with postage wholly unpaid and articles of all kinds with insufficient postage paid are chargeable with double the amount of the deficient postage.

Forwarding. Mail matter of all kinds received from any foreign country, including Canada, Cuba, Mexico and the Republic of Panama, is required to be forwarded, at the request of the addressee, from one post-office to another—and in the case of articles other than parcel post packages—to any foreign country, without additional charge for postage.

Return. Letters and other articles of apparent value, if undeliverable, are required to be returned without extra charge.

FOREIGN PARCEL POST

Admissible Matter. Packages of mailable merchandise may be sent in unsealed packages, by "Parcel Post" to the following named countries:

*Argentina,	*Barbados,	British Guiana,
Australia, including	Belgium (suspended)	Chile,
Tasmania,	Bermuda,	Colombia,
Austria, (suspended)	Bolivia,	Costa Rica,
Bahamas,	Brazil,	*Curacao,

Danish W. Indies,	Guatemala,	Newfoundland,
Denmark, including	Haiti	New Zealand, includ-
Faroe Islands and	Honduras (British),	ing Fanning Island
Iceland,	Honduras (Republic	Nicaragua,
Dominican Republic,	of),	Norway,
*Dutch Guiana,	Hongkong,†	Panama,
Ecuador,	Hungary, (suspended)	Peru,
*France,	Italy,	Salvador,
*French Guiana,	Jamaica,	Sweden,
Germany, (suspend-	Japan,†	Trinidad, including
ed)	Leeward Islands,	Tobago,
*Gibraltar,	Liberia,	*Uruguay,
*Great Britain,	*Martinique,	Venezuela,
*Greece,	Mexico,	Windward Islands
*Guadeloupe,	*Netherlands, (sus-	Islands of Carpathos
	pended)	and Rhodes.

Postage Rates. Postage must be prepaid in full by stamps affixed at the rate of 12 cents a pound or fraction of a pound. Registry fee 10 cents in addition to postage.

Registration. The sender of a parcel addressed to any of the countries named in the table at the head of this section, except Argentina, Barbados, Curacao, Dutch Guiana, France, French Guiana, Gibraltar, Great Britain, Greece, Guadeloupe, Martinique, The Netherlands and Uruguay, may have the same registered by paying a registry fee of 10 cents, and will receive the "Return Receipts" without special charge therefor, when envelope or wrapper is marked "Return receipt demanded."

Place of Mailing. Matter intended for parcel post must be taken to the post-office for inspection and there deposited in the mails. It must not be deposited in a letter box.

Letters Prohibited. A letter or communication of the nature of personal correspondence must not accompany, be written on, or inclosed with any parcel. If such be found, the letter will be placed in the mails if separable, and if the communication be inseparably attached, the whole parcel will be rejected.

Dimensions. To all countries named packages are limited to three and one-half feet in length, and to six feet in length and girth combined, except that packages for Colombia and Mexico are limited to two feet in length and four feet in girth.

Weight. Packages to certain post-offices in Mexico must not exceed four pounds six ounces in weight, but those for all other countries named may weigh up to but not exceeding eleven pounds.

* Parcels cannot be registered.

† Parcel post packages addressed for delivery in the cities in China named in United States Postal Guide, are mailable at the postage rate and subject to the conditions applicable to parcel post packages for delivery at Hongkong.

‡ Parcel post packages addressed for delivery at any post-office in Formosa or Korea, and the places in China and Manchuria named in United States Postal Guide, are mailable at the postage rate and subject to the conditions applicable to parcel post packages addressed for delivery in Japan.

WOMEN'S PEACE PARTY

The Women's Peace Party was started at Washington on January 10th, 1915, in order that women might have a means of voicing their protest against war. It demanded for women a share in deciding between war and peace, inasmuch as women and children are the greatest sufferers when a nation is at war. Among other things, the platform calls for education of youth in the ideals of peace, the franchise for women, the "concert of nations" to supersede "balance of power," the substitution of law for war throughout the world, and of an international police for rival armies and navies. At a meeting in Amsterdam on February 13th, 1915, by leaders of women's organizations, it was decided to call an international women's congress in a neutral city for the purpose of discussing what role women should assume in preventing further wars, encouraging international comity, and promoting political liberty for all women. On April 29th at Hague, the Netherlands, the first of a series of meetings was held. Jane Addams, of Chicago, was chosen for chairwoman. More than a thousand women selected from sixteen countries, took part. America sent the largest delegation, the next in order being Germany, Austria-Hungary, Norway and Sweden. Resolutions were passed urging that moral, commercial and economic pressure be brought to bear

on nations failing to refer their disagreements to arbitration; that all secret treaties should be void, that there should be no transference of territory without the consent of the men and women residing therein, that the seas should be open to all nations on equal terms; urging governments of the world to make an end to the war, begin peace negotiations and effect a settlement based on justice; recommending the nationalization of armaments in order to prevent manufacturers of munitions from fostering war, protesting against the horror of war, opposing the assumption that women can be protected under conditions of modern warfare, and declaring that women's influence against war can be effective only with equal political rights. A permanent International Women's Peace Committee was created, and the congress sent delegates to the President of the United States and to the heads of many European nations for the purpose of promoting if possible, the beginning of negotiations between the belligerents. Twenty-one countries have subsequently appointed committees which will go to the place at which the war settlement is made and will hold a congress on the fifth week of the Peace Conference. The National headquarters of the W. P. F. is 116 So. Michigan Avenue, Chicago, Ill. Miss Jane Addams is national chairwoman.

STATE ELECTION CALENDAR

Gubernatorial if not otherwise specified

Alabama—Every fourth year. Next election Nov. 5, 1918.
 Arizona—Biennially; first Tuesday after first Monday in November. Next election Nov. 5, 1918.
 Arkansas—Biennially; second Monday in September. Next election Sept. 9, 1918.
 California—Every fourth year. Next election Nov. 5, 1918.
 Colorado—Biennially. Next election Nov. 5, 1918.
 Connecticut—State officers except attorney-general, biennially; Next election Nov. 5, 1918; attorney-general quadrennially. Next election Nov. 2, 1920.
 Delaware—Every fourth year. Next election Nov. 2, 1920.
 Florida—Every fourth year. Next election Nov. 2, 1920.
 Georgia—Biennially. Next election Nov. 5, 1918.
 Idaho—Biennially. Next election Nov. 5, 1918.
 Illinois—Governor, lieutenant-governor, secretary of state, auditor and attorney-general every fourth year. Next election Nov. 2, 1920. State treasurer biennially. Next election Nov. 5, 1918.
 Indiana—Governor, every fourth year. Next election Nov. 2, 1920. Other state officers biennially. Next election Nov. 5, 1918.
 Iowa—Governor, lieutenant-governor, superintendent of instruction, one justice of the Supreme court and one railroad commissioner biennially. Next election Nov. 5, 1918.
 Kansas—Biennially. Next election Nov. 5, 1918.
 Kentucky—Every fourth year. Next election Nov. 4, 1919.
 Louisiana—Every fourth year; third Tuesday in April. Next election April 13, 1920.
 Maine—Biennially; second Monday in September. Next election Sept. 9, 1918.
 Maryland—Every fourth year. Next election Nov. 4, 1919.
 Massachusetts—Annually. Next election Nov. 6, 1917.
 Michigan—Biennially. Next election Nov. 5, 1917.
 Minnesota—Biennially. Next election Nov. 5, 1918.
 Mississippi—Every fourth year. Next election Nov. 4, 1919.
 Missouri—Principal state officers every fourth year. Next election of governor, lieutenant-governor, secretary of state, auditor, treasurer and attorney-general Nov. 2, 1920.
 Montana—Every fourth year. Next election Nov. 2, 1920.
 Nebraska—Biennially. Next election Nov. 5, 1918.
 Nevada—Every fourth year. Next election Nov. 5, 1918.
 New Hampshire—Biennially. Next election Nov. 5, 1918.
 New Jersey—Governor every third year, other officers appointed. Next election Nov. 3, 1919.
 New Mexico—Every fourth year; on Tuesday after the first Monday in November. Next election Nov. 2, 1920.
 New York—Biennially. Next election Nov. 5, 1918.
 North Carolina—Every fourth year. Next election Nov. 2, 1920.
 North Dakota—Biennially. Next election Nov. 5, 1918.
 Ohio—Governor, lieutenant-governor, state treasurer and attorney-general biennially. Next election Nov. 6, 1917. Secretary of state and dairy and food commissioner biennially. Next election Nov. 5, 1918. Auditor every fourth year. Next election Nov. 4, 1919.
 Oklahoma—Every fourth year. Next election Nov. 5, 1918.
 Oregon—Every fourth year. Next election Nov. 5, 1918.
 Pennsylvania—Governor, lieutenant-governor and secretary of internal affairs every fourth year. Next election Nov. 5, 1918. State treasurer biennially. Next election Nov. 4, 1919. Other officials appointed.
 Rhode Island—Biennially. Next election Nov. 5, 1918.
 South Carolina—Biennially. Next election Nov. 5, 1918.
 South Dakota—Biennially. Next election Nov. 5, 1918.
 Tennessee—Biennially. Next election Nov. 5, 1918.
 Texas—Biennially. Next election Nov. 5, 1918.
 Utah—Every fourth year. Next election Nov. 2, 1920.
 Vermont—Biennially; first Tuesday in September. Next election Sept. 3, 1918.
 Virginia—Every fourth year. Next election Nov. 6, 1917.
 Washington—Every fourth year. Next election Nov. 2, 1920.
 West Virginia—Every fourth year. Next election Nov. 2, 1920.
 Wisconsin—Biennially. Next election Nov. 5, 1918.
 Wyoming—Every fourth year. Next election Nov. 5, 1918.

RECORDS OF BALLOTS AT CONVENTIONS

The following table gives the history of the national conventions since 1832, showing the number of ballots taken by each of the two leading parties and the candidate finally selected.

Ballots			Nominations	
Year	Dem.	Rep.	Dem.	Rep.
1832.....	1	1	Jackson	Clay*
1836.....	1	†	Van Buren	[Harrison]*†
1840.....	1	(7)†	Van Buren	Harrison*
1844.....	9	1	Polk	Clay*
1848.....	4	4	Cass	Taylor*
1852.....	49	53	Pierce	Scott*
1856.....	17	1	Buchanan	Frémont
1860.....	59	4	Douglas	Lincoln
1864.....	1	1	McClellan	Lincoln
1868.....	22	1	Seymour	Grant
1872.....	1	1	Greeley	Grant
1876.....	2	7	Tilden	Hayes
1880.....	2	36	Hancock	Garfield
1884.....	2	4	Cleveland	Blaine
1888.....	1	8	Cleveland	Harrison
1892.....	1	1	Cleveland	Harrison
1896.....	5	1	Bryan	McKinley
1900.....	1	1	Bryan	McKinley
1904.....	1	1	Parker	Roosevelt
1908.....	1	1	Bryan	Taft
1912.....	46	1	Wilson	Taft
1916.....	1	3	Wilson	Hughes

Democrats established the record in their 1860 convention. The delegates assembled in Charleston, S. C., on April 23. They were in session there for ten long days, without coming to any agreement. After fifty-seven ballots had been taken in vain they adjourned to meet at Baltimore on June 18. There the second ballot resulted in the nomination of Stephen A. Douglas. Incidentally the chairman of the National Committee that year of dissension was August Belmont, father of the two Belmonts who were in the storm centre in 1912.

But the banner year for convention schisms was 1852. In that year over a hundred ballots were taken in the two conventions—49 by the Democrats and 53 by the Whigs. The Whigs finally elected Scott, but the Democrats had to fall back on a compromise candidate in the person of Pierce who was subsequently elected President.

*Whig. †No convention. ‡No record

THE PRESIDENT OF THE UNITED STATES.

Qualifications.—The President must be thirty-five years old, a native of the United States, and a resident therein for fourteen years. The qualifications of the Vice-President are the same.

Term.—His term of office is four years, and he swears to preserve, protect and defend the Constitution of the United States to the best of his ability.

Army Status.—He is Commander-in-Chief of the Army and Navy of the United States, when it is called into the actual service of the nation.

Advisors.—He may require the opinion in writing of the principal officers in each of the executive departments upon any subject relating to the duties of their respective offices. These executive departments are nine in number—Department of State, Treasury Department, War Department, Department of Justice (Attorney-General), Post Office Department, Navy Department, Department of the Interior, Department of Agriculture, Department of Commerce, and Department of Labor. The heads thereof constitute the President's Cabinet or official family.

Powers.—He has power to grant pardons for offenses against the United States, except in cases of impeachments; to make treaties by and with the advice and consent of two-thirds of the Senate; nominate, and, by and with the advice and consent of two-thirds of the Senate, appoint ambassadors, ministers and consuls to foreign countries, Judges of the U. S. Supreme Court, and all other officers of the United States whose appointments are not otherwise provided for. If vacancies occur during a recess of the Senate, he may grant commissions to new appointees, which shall expire at the end of the next session of the Senate.

ORIGIN OF THE PRESENT POLITICAL PARTIES

REPUBLICAN PARTY

The organization of the present Republican party was a direct result of the ill feeling aroused by the passage of the Kansas-Nebraska act of 1854. This measure repealed the Compromise act of 1820 which called for the exclusion of slavery north of 36°36'. In the northern states the opposition soon grew beyond party lines, the movement absorbing many sympathizers from the Whigs, Free Soilers, and Democrats. The men became known as Anti-Nebraska men. The first state convention of those opposing the Kansas-Nebraska act took place at Jackson, Michigan, on July 6, 1854, and there the name "Republican" was formally adopted. The party was nicknamed "Black-Republican" by the Democrats on account of its sympathy with the colored race, but the other old parties were nearly wiped out by desertions to the new standard.

In 1856, after having already been in control of the House for two years, a national convention was called at Philadelphia at which John C. Frémont of California was nominated for President on a platform opposed to slavery in Territories and in advocacy of a closer union of states. While the Republicans lost they showed decided strength.

The feeling became much more intense during the next four years, the Republicans winning many supporters and the Democrats being badly split between the radical pro-slavery element and the Douglas Democrats. Abraham Lincoln was nominated by the Republican party at Chicago, May 16, 1860 on a platform similar to the one of 1856 with the additional plank of a protective tariff.

With the election of Lincoln the Republican party has held the reins of government, with the exception of two short periods, for over half a century.

DEMOCRATIC PARTY

The Democratic party is the oldest of any of the national political parties now existing. Its policies may be said to have crystallized in the time of Jefferson, although the movement at first was known as the Democratic-Republican party. The name Republican was chosen in opposition to the monarchist and in favor of state's rights. The name Democrat was selected to oppose the aristocratic element and in favor of equal privileges for all. Jefferson was the moving spirit. He was elected President in 1800 and the party held control of the government for twenty-four years. During this era the Federalists, the opposing element, were vanquished. Serious dissensions however, arose in the Jefferson party after the War of 1812. A strong liberal element believed as the Federalists had, in protection, internal improvement and the establishment of a national bank. In 1824 the two wings ran separate Presidential candidates. The election was settled by the House of Representatives in the choice of John Adams the vice-presidential candidate of the liberal wing. Now virtually a separate party it selected the name "National Republican" later known as "Whig" while the strict constructionists or Jefferson following took the name of "Democrat" under the leadership of Jackson. Some writers give this as the proper beginning of the Democratic Party, 1828-1831.

After the loss of Jackson the Democratic party fell under the control of Southern enthusiasts who turned the states rights doctrine into a defence of slavery. The Kansas trouble further served to draw such leaders as Douglas outside the ranks.

In the campaign of 1860 the Democrats had two tickets in the field, the combined popular vote of which surpassed that of Lincoln who was elected by the new Republican party.

PROHIBITION PARTY

Until 1865, what may be designated political temperance depended on the use of parties as they were found to exist in the States. This localized the temperance issue, and subjected it to the whim of opponents. The time had come for the nationalization of the cause. In 1869, during a session of the Good Templars at Oswego, N. Y., a call was made for a convention to organize a "National Prohibition party." This Convention met in Chicago, September 1, 1869, with five hundred delegates from twenty States, and launched the new party. The first National Convention at Columbus, Ohio, February 22, 1872, nominated James Black, of Pennsylvania, for President on a platform declaring that as all existing political parties had proved unwilling to adopt an adequate policy respecting traffic in intoxicating drinks, therefore the Prohibition party pledged itself to maintain the principles of its Declaration and Constitution; that effective State as well as National

prohibition is the only means of suppressing traffic in intoxicants; that existing party competition for the liquor vote is a peril to the nation; dissuasion from the use of intoxicants; competency, honesty and sobriety as qualifications for office. The party has never polled more than 265,000 votes.

SOCIALIST PARTY

For historic purposes it is well to state in this connection that the last convention of the American Railway Union was the first convention of the Social Democracy of America, and was held at Chicago, June, 1897, the change of name, and, in some respect, of principles, being due to the crushing of the Union after the Pullman strike. At the national convention of the Social Democracy, June, 1898, a split occurred, one faction adhering to the colonization scheme, the other favoring political action as a working-class party. The latter faction became known as the Social Democratic Party. In July, 1899, the Socialist Labor Party divided, and one of its factions united with the Social Democratic Party in 1900, the united party taking the name of the Socialist Party. In 1900 the Socialist Party cast 87,814 votes and the Socialist Labor Party 39,739 votes.

The Socialist Party, the first in the field for the campaign of 1904, met in national convention at Chicago, May 1-6, 1904, where it nominated, May 5, as its candidate for President Eugene V. Debs, of Terre Haute, Indiana, and for Vice-President Ben Hanford, of New York.

Its platform appealed to the people as that of the only organization that is truly democratic; that other parties are false to the idea of liberty and self-government in which the nation was born, and that State and national legislatures have become the agencies of property interests.

PROGRESSIVE PARTY

The formation of the Progressive Party was the outgrowth of a movement of discontent among the Republicans. Shortly after the beginning of the administration of President Taft in 1908 a number of Senators and members of the House of Representatives broke away from the reactionary methods of the old Republican clique and refused to abide by caucus rules. They combined with the Democrats on many important measures to the embarrassment of the "stand pat" Republicans. At first these men were known as "insurgents." Senator Robert M. La Follette of Wisconsin was the avowed leader of the faction in the Upper House.

The sentiment against the administration and the conservative element gradually grew throughout the country among the adherents of the party. This was greatly augmented by the passage of the Payne-Aldrich Tariff Act. The movement finally took on the name "Progressive Republican." Representatives from a number of States met in a national conference at Chicago on October 16, 1911 and adopted a platform declaring that "the progressive movement is a struggle to wrest the control of the government in the nation and States from the representatives of special privilege, and restore it to the control of the people." The conference at the same time endorsed Senator La Follette for President and declared for a direct primary as a means for the expression of a presidential choice.

The legislatures of several States, following the general agitation for Presidential preference primaries, enacted laws legalizing such methods of procedure.

Senator La Follette commenced a stumping campaign for the Presidency early in the winter 1911-12. During the spring he became ill and was obliged to retire temporarily. During this interlude Ex-President Roosevelt, who had been urged by a number of leaders to lead the progressive movement, announced his candidacy for the Presidency.

Mr. Roosevelt conducted a strenuous campaign in the States where Presidential preference primaries had been established and to the surprise of his closest advisers, he won overwhelming majorities in nearly every one, defeating President Taft, his opponent, in some cases by 6 to 1. Delegates pledged to him went to the Chicago Convention nearly as strong in numbers as those instructed for Mr. Taft, whose delegates were mostly from States not holding primaries. The fight of the Convention is told elsewhere in this ALMANAC. Mr. Roosevelt lost the nomination but he was not deterred. The very night Mr. Taft was nominated Mr. Roosevelt met his followers in Orchestra Hall at Chicago and there a new party was determined upon, to be known as the Progressive Party.

Several days later a call was issued for a national convention to be held at Chicago during the week beginning August 5.

NATIONAL REPUBLICAN PLATFORM 1916

In 1861 the Republican party stood for the Union. As it believe for the union of States, it now stands for a united people, true to American ideals, loyal to American traditions, knowing no allegiance except to the Constitution, to the Government, and to the flag of the United States. We believe in American policies at home and abroad.

Protection of American Rights. We declare that we believe in and will enforce the protection of every American citizen in all the rights secured to him by the Constitution, treaties, and the law of nations, at home and abroad, by land and sea. These rights, which, in violation of the specific promise of their party, made at Baltimore in 1912, the Democratic President and the Democratic Congress have failed to defend, we will unflinchingly maintain.

We desire peace, the peace of justice and right, and believe in maintaining a straight and honest neutrality between the belligerents in the great war in Europe. We must perform all our duties and insist upon all our rights as neutrals, without fear and without favor. We believe that peace and neutrality, as well as the dignity and influence of the United States, cannot be preserved by shifty expedients, by phrasemaking, by performances in language, or by attitudes ever changing in an effort to secure groups of voters.

The present Administration has destroyed our influence abroad and humiliated us in our own eyes. The Republican party believes that a firm, consistent, and courageous foreign policy, always maintained by Republican Presidents in accordance with American traditions, is the best, as it is the only true way to preserve our peace and restore us to our rightful place among the nations. We believe in the pacific settlement of international disputes and favor the establishment of a world court for that purpose.

Mexico. We deeply sympathize with the fifteen million people of Mexico, who, for three years, have seen their country devastated, their homes destroyed, their fellow-citizens murdered, and their women outraged by armed bands of desperadoes, led by self-seeking, conscienceless agitators, who, when temporarily successful in any locality, have neither sought nor been able to restore order or establish and maintain peace.

We express our horror and indignation at the outrages which have been and are being perpetrated by these bandits upon American men and women, who were or are in Mexico by invitation of the laws and of the Government of that country, and whose rights to security of person and property are guaranteed by solemn treaty obligations. We denounce the indefensible methods of interference employed by this Administration in the internal affairs of Mexico, and refer with shame to its failure to discharge the duty of this country as next friend to Mexico, its duty to other Powers who have relied upon us as such friend, and its duty to our citizens in Mexico, in permitting the continuance of such conditions, first, by failure to act promptly and firmly, and secondly, by lending its influence to the continuance of such conditions through recognition of one of the factions responsible for these outrages.

We pledge our aid in restoring order and maintaining peace in Mexico. We promise to our citizens on and near our border and to those in Mexico, wherever they may be found, adequate and absolute protection in their lives, liberty, and property.

Monroe Doctrine. We reaffirm our approval of the Monroe Doctrine, and declare its maintenance to be a policy of this country essential to its present and future peace and safety, and to the achievement of its manifest destiny.

Latin America. We favor the continuation of Republican policies, which will result in drawing more and more closely the commercial, financial, and social relations between this country and the countries of Latin America.

Philippines. We renew our allegiance to the Philippine policy inaugurated by McKinley, approved by Congress, and consistently carried out by Roosevelt and Taft. Even in this short time it has enormously improved the material and social conditions of the islands, given the Philippine people a constantly increasing participation in their Government, and, if persisted in, will bring still greater benefits in the future.

We accepted the responsibility of the islands as a duty to civilization and the Filipino people. To leave with our task half done would break our pledges, injure our prestige among nations, and imperil what already has been accomplished.

We condemn the Democratic Administration for its attempt to abandon the Philippines, which was prevented only by the vigorous opposition of Republican members of Congress, aided by a few patriotic Democrats.

Treaty with Russia. We reiterate our unqualified approval of the action taken in December, 1911, by the President and Congress to secure with Russia, as with other countries, a treaty that will recognize the absolute right of expatriation and prevent all discrimination of whatever kind between American citizens, whether native-born or alien, and regardless of race, religion, or previous political allegiance. We renew the pledge to observe this principle and to maintain the right of asylum, which is neither to be surrendered nor restricted, and we unite in the cherished hope that the war which is now desolating the world may speedily end, with a complete and lasting restoration of brotherhood among the nations of the earth and the assurance of full equal rights, civil and religious, to all men in every land.

Protection of the Country. In order to maintain our peace and make certain the security of our people within our own borders, the country must have not only adequate but thorough and complete national defence, ready for any emergency. We must have a sufficient and effective regular army and a provision for ample reserves, already drilled and disciplined, who can be called at once to the colors when the hour of danger comes.

We must have a navy so strong and so well proportioned and equipped, so thoroughly ready and prepared that no enemy can gain command of the sea and effect a landing in force on either our Western or our Eastern coast. To secure these results we must have a coherent and continuous policy of national defence, which even in these perilous days the Democratic party has utterly failed to develop, but which we promise to give to the country.

Tariff. The Republican party stands now, as always, in the fullest sense, for the policy of tariff protection to American industries and American labor, and does not regard an anti-dumping provision as an adequate substitute. Such protection should be reasonable in amount, but sufficient to protect adequately American industry and American labor, and be so adjusted as to prevent undue exactions by monopolies or Trusts. It should, moreover, give special attention to securing the industrial independence of the United States, as in the case of dyes.

Through wise tariff and industrial legislation our industries can be so organized that they will become not only a commercial bulwark, but a powerful aid to national defence.

The Underwood Tariff act is a complete failure in every respect. Under its administration, imports have enormously increased, in spite of the fact that the intercourse with foreign countries has been largely cut off by reason of the war, while the revenues, of which we stand in such dire need, have been greatly reduced. Under the normal conditions which prevailed prior to the war, it was clearly demonstrated that this act deprived the American producer and the American wage-earner of that protection which entitled them to meet their foreign competitors, and, but for the adventitious conditions created by the war, would long since have paralyzed all forms of American industry and deprived American labor of its just reward.

It has not in the least reduced the cost of living, which has constantly advanced from the date of its enactment. The welfare of our people demands its repeal and the substitution of a measure which, in peace, as well as in war, will produce ample revenue and give reasonable protection to all forms of American production in mine, forest, field, and factory.

We favor the creation of a Tariff Commission, with complete power to gather and compile information for the use of Congress in all matters relating to the tariff.

Business. The Republican party has long believed in the rigid supervision and strict regulation of the transportation and great corporations of the country. It has put its creed into its deeds, and all really effective laws regulating the railroads and the great industrial corporations are the work of Republican Congresses and Presidents. For this policy of regulation and supervision the Democrats, in a stumbling and piecemeal way, are undertaking to involve the Government in business which should be left within the sphere of private enterprise and

NATIONAL REPUBLICAN PARTY PLATFORM 1916 (Continued)

indirect competition with its own citizens, a policy which is sure to result in waste, great expense to the taxpayer, and in an inferior product.

The Republican party firmly believes that all who violate the laws in regulation of business should be individually punished. But prosecution is very different from persecution, and business success, no matter how honestly attained, is apparently regarded by the Democratic party as in itself a crime. Such doctrines and beliefs choke enterprise and stifle prosperity. The Republican party believes in encouraging American business, as it believes in and will seek to advance all American interests.

Rural Credits. We favor an effective system of rural credits as opposed to the ineffective law proposed by the present Democratic Administration.

Rural Free Delivery. We favor the extension of the rural free delivery system and condemn the Democratic Administration for curtailing and crippling it.

Merchant Marine. In view of the policies adopted by all the maritime nations to encourage their shipping interests, and in order to enable us to compete with them for the ocean-carrying trade, we favor the payment to ships engaged in the foreign trade of liberal compensation for services actually rendered in carrying the mails, and such further legislation as will build up an adequate American merchant marine and give us ships which may be requisitioned by the Government in time of national emergency.

We are utterly opposed to the Government ownership of vessels, as proposed by the Democratic party, because Government owned ships, while effectively preventing the development of the American merchant marine by private capital, will be entirely unable to provide for the vast volume of American freights, and will leave us more helpless than ever in the hard grip of foreign syndicates.

Transportation. Interstate and intrastate transportation has become so interwoven that the attempt to apply two, and often several, sets of laws to its regulation has produced conflicts of authority, embarrassment in operation, and inconvenience and expense to the public.

The entire transportation system of the country has become essentially national. We, therefore, favor such action by legislation, or, if necessary, through an amendment to the Constitution of the United States as will result in placing it under exclusive Federal control.

Economy and a National Budget. The increasing cost of the national Government, and the need for the greatest economy of its resources, in order to meet the growing demands of the people for Government service, call for the severest condemnation of the wasteful appropriations of this Democratic Administration, of its shameless raids on the Treasury, and of its opposition to and rejection of President Taft's oft-repeated proposals and earnest efforts to secure economy and efficiency through the establishment of a simple, business-like

budget system, to which we pledge our support, and which we hold to be necessary to effect a needed reform in the administration of national finances.

Conservation. We believe in a careful husbandry of all the natural resources of the nation—a husbandry which means development without waste, use without abuse.

Civil Service Reform. The Civil Service law has always been sustained by the Republican Party, and we renew our repeated declaration that it shall be thoroughly and honestly enforced and extended wherever practicable. The Democratic Party has created since March 4, 1913, 30,000 offices outside of the Civil Service law, at an annual cost of \$44,000,000 to the taxpayers of the country.

We condemn the gross abuse and the misuse of the law by the present Democratic Administration and pledge ourselves to a reorganization along lines of efficiency and economy.

Territorial Matters. Reaffirming the attitude long maintained by the Republican Party, we hold that officials appointed to administer the Government of any territory should be bona-fide residents of the territory in which their duties are to be performed.

Labor Laws. We pledge the Republican Party to the faithful enforcement of all Federal laws passed for the protection of labor. We favor vocational education, the enactment and rigid enforcement of a Federal child labor law, the enactment of a generous and comprehensive workmen's compensation law, within the commerce power of Congress, and an accident compensation law covering all Government employees. We favor the collection and collation under the direction of the Department of Labor of complete data relating to industrial hazards for the information of Congress, to the end that such legislation may be adopted as may be calculated to secure the safety, conservation, and protection of labor from the dangers incident to industry and transportation.

Suffrage. The Republican Party, reaffirming its faith of Government of the people, by the people, for the people, as a measure of justice to one-half of the adult people of this country, favors the extension of the suffrage to women, but recognizing the right of each State to settle this question for itself.

Such are our principles, such are our purposes and policies. We close as we began. The times are dangerous, and the future is fraught with peril. The great issues of the day have been confused by words and phrases. The American spirit, which made the country and saved the Union has been forgotten by those charged with the responsibility of power. We appeal to all Americans, whether naturalized or native born, to prove to the world that we are Americans in thought and in deed, with one loyalty, one hope, one aspiration. We call on all Americans to be true to the spirit of America, to the great traditions of their common country, and, above all things, to keep the faith.

NATIONAL DEMOCRATIC PLATFORM—1916

The Democratic Party in national convention assembled adopted the following declaration to the end that the people of the United States may both realize the achievements wrought by four years of Democratic administration and be apprised of the policies to which the party is committed for the further conduct of national affairs.

Record of Achievement. We indorse the administration of Woodrow Wilson. It speaks for itself. It is the best exposition of sound democratic policy at home and abroad.

We challenge comparison of our record, our keeping of pledges, and our constructive legislation, with those of any party of any time.

We found our country hampered by special privilege, a vicious tariff, obsolete banking laws, and an inelastic currency. Our foreign affairs were dominated by commercial interests for their selfish ends. The Republican Party, despite repeated pledges, was impotent to correct abuses which it had fostered. Under our administration, under a leadership which has never faltered,

these abuses have been corrected, and our people have been freed therefrom.

Our archaic banking and currency system, prolific of panic and disaster under Republican administrations—long the refuge of the Money Trust—has been supplanted by the Federal Reserve act, a true democracy of credit under Government control, already proved a financial bulwark in a world crisis, mobilizing our resources, placing abundant credit at the disposal of legitimate industry and making a currency panic impossible.

We have created a Federal trade commission to accommodate the perplexing questions arising under the anti-trust laws so that monopoly may be strangled at its birth and legitimate industry encouraged. Fair competition in business is now assured.

We have effected an adjustment of the tariff, adequate for revenue under peace conditions, and fair to the consumer and to the producer. We have adjusted the burdens of taxation so that swollen incomes bear their equitable share. Our revenues have

been sufficient in times of world stress, and will largely exceed the expenditures of the current fiscal year.

We have lifted human labor from the category of commodities and have secured to the workman the right of voluntary association for his protection and welfare. We have protected the rights of the laborer against the unwarranted issuance of writs of injunction, and have guaranteed to him the right of trial by jury in cases of alleged contempt committed outside of the presence of the court.

We have advanced the parcel post to genuine efficiency, enlarged the postal savings system, added 10,000 rural delivery routes and extensions, thus reaching 2,500,000 additional people, improved the postal service in every branch, and for the first time in our history, placed the Post Office system on a self-supporting basis, with actual surplus in 1913, 1914, and 1915.

Economic Reforms. The reforms which were most obviously needed to clear away privilege, prevent unfair discrimination, and release the energies of men of all ranks and advantages, have been effected by recent legislation. We must now remove, so far as possible, every remaining element of unrest and uncertainty from the path of the business men of America, and secure for them a continued period of quiet, assured and confident prosperity.

Tariff. We reaffirm our belief in the doctrine of a tariff for the purpose of providing sufficient revenue for the operation of the Government economically administered, and unreservedly indorse the Underwood Tariff law as truly exemplifying that doctrine. We recognize that tariff rates are necessarily subject to change to meet changing conditions in the world's production and trade. The events of the last two years have brought about many momentous changes. In some respects their effects are yet conjectural and wait to be disclosed, particularly in regard to our foreign trade. Two years of a war which has directly involved most of the chief industrial nations of the world, and which has indirectly affected the life and industry of all nations, are bringing about economic changes more varied and far-reaching than the world has ever before experienced. In order to ascertain just what those changes may be, the Democratic Congress is providing for a non-partisan tariff commission to make impartial and thorough study of every economic fact that may throw light, either upon our past or upon our future fiscal policy with regard to the imposition of taxes on imports or with regard to the changed and changing conditions under which our trade is carried on. We cordially indorse this timely proposal and declare ourselves in sympathy with the principle and purpose of shaping legislation within that field in accordance with clearly established facts rather than in accordance with the demands of selfish interests or upon information provided largely, if not exclusively, by them.

Americanism. The part that the United States will play in the new day of international relationships which is now upon us will depend upon our preparation and our character. The Democratic Party, therefore, recognizes the assertion and triumphant demonstration of the indivisibility and coherent strength of the nation as the supreme issue of this day in which the whole world faces the crisis of manifold change. It summons all men, of whatever origin or creed, who would count themselves Americans, to join in making clear to all the world the unity and consequent power of America.

This is an issue of patriotism. To taint it with partisanship would be to defile it. In this day of test, America must show itself, not a nation of partisans, but a nation of patriots. There is gathered here in America the best of the blood, the industry, the genius of the whole world, the elements of a great race and a magnificent society to be melted into a mighty and splendid nation.

Whoever, actuated by the purpose to promote the interest of a foreign power, in disregard of our own country's welfare, or to injure this Government in its foreign relations or cripple or destroy its industries at home, and whoever by arousing prejudices of a racial, religious, or other nature creates discord and strife among our people so as to obstruct the wholesome process of unification, is faithless to the trust which the privileges of citizenship repose in him and disloyal to his country.

We, therefore, condemn as subversive of this nation's unity and integrity, and as destructive of its welfare, the activities and designs of every group or organization, political or otherwise, that has for its object the advancement of the interest of a foreign power, whether such object is promoted by intimidating

the Government, a political party, or representatives of the people, or which is calculated and tends to divide our people into antagonistic groups and thus to destroy that complete agreement and solidarity of the people and that unity of sentiment and national purpose so essential to the perpetuity of the nation and its free institutions.

We condemn all alliances and combinations of individuals in this country of whatever nationality or descent, who agree and conspire together for the purpose of embarrassing or weakening our Government or of improperly influencing or coercing our public representatives in dealing or negotiating with any foreign power. We charge that such conspiracies among a limited number exist and have been instigated for the purpose of advancing the interests of foreign countries to the prejudice and detriment of our own country. We condemn any political party which, in view of the activity of such conspirators, surrenders its integrity or modifies its policy.

Preparedness. Along with the proof of our character as a nation must go the proof of our power to play the part that legitimately belongs to us. The people of the United States love peace. They respect the rights and covet the friendship of all other nations. They desire neither any additional territory nor any advantage which cannot be peacefully gained by their skill, their industry, or their enterprise; but they insist upon having absolute freedom of national life and policy, and feel that they owe it to themselves and to the role of spirited independence which it is their sole ambition to play that they should render themselves secure against the hazard of interference from any quarter, and should be able to protect their rights upon the seas or in any part of the world. We, therefore, favor the maintenance of an army fully adequate to the requirements of order, of safety, and of the protection of the nation's rights, the fullest development of modern methods of seacoast defense and the maintenance of an adequate reserve of citizens trained to arms and prepared to safeguard the people and territory of the United States against any danger of hostile action which may unexpectedly arise; and a fixed policy for the continuous development of a navy worthy to support the great naval traditions of the United States, and fully equal to the international tasks which the United States hopes and expects to take part in performing. The plans and enactments of the present Congress afford substantial proof of our purpose in this exigent matter.

International Relations. The Democratic administration has throughout the present war scrupulously and successfully held to the old paths of neutrality and of the peaceful pursuit of the legitimate objects of our national life, which statesmen of all parties and creeds have prescribed for themselves in America since the beginning of our history. But the circumstances of the last two years have revealed necessities of international action which no former generation can have foreseen. We hold that it is the duty of the United States to use its power, not only to make itself safe at home, but also to make secure its just interests throughout the world, and both for this end and in the interest of humanity, to assist the world in securing settled peace and justice. We believe that every people has the right to choose the sovereignty under which it shall live; that the small States of the world have a right to enjoy from other nations the same respect for their sovereignty and for their territorial integrity that great and powerful nations expect and insist upon; and that the world has a right to be free from every disturbance of its peace that has its origin in aggression or disregard of the rights of peoples and nations; and we believe that the time has come when it is the duty of the United States to join with the other nations of the world in any feasible association that will effectively serve these principles, to maintain inviolate the complete security of the highway of the seas for the common and unhindered use of all nations.

The present Administration has consistently sought to act upon and realize in its conduct of the foreign affairs of the nation the principle that should be the object of any association of the nations formed to secure the peace of the world and the maintenance of national and individual rights. It has followed the highest American traditions. It has preferred respect for the fundamental rights of smaller States, even to property interests, and has secured the friendship of the people of these States for the United States by refusing to make a more material interest an excuse for the assertion of our superior power against the dignity of their sovereign independence. It has regarded the lives of its citizens and the claims of humanity as of greater moment than material rights, and peace as the best basis for

the just settlement of commercial claims. It has made the honor and ideals of the United States its standard alike in negotiation and action.

Pan-American Accord. We recognize now, as we have always recognized, a definite and common interest between the United States with the other peoples and republics of the Western Hemisphere in all matters of national independence and free political development. We favor the establishment and maintenance of the closest relations of amity and mutual helpfulness between the United States and the other republics of the American Continents for the support of peace and the promotion of a common prosperity. To that end we favor all measures which may be necessary to facilitate intimate intercourse and promote commerce between the United States and her neighbors to the south of us, and such international understandings as may be practicable and suitable to accomplish these ends.

We commend the action of the Democratic Administration in holding the Pan-American Financial conference at Washington in May, 1915, and organizing the International High Commission, which represented the United States in the recent meeting of representatives of the Latin-American republics at Buenos Ayres, April, 1916, which have so greatly promoted the friendly relations between the people of the Western Hemisphere.

Mexico. The Monroe Doctrine is reasserted as a principle of Democratic faith. That doctrine guarantees the independent republics of the two Americas against aggression from another continent. It implies, as well, the most scrupulous regard upon our part for the sovereignty of each of them. The want of a stable, responsible Government in Mexico, capable of repressing and punishing marauders and bandit bands, who have not only taken the lives and seized and destroyed the property of American citizens in that country, but have insolently invaded our soil, made war upon and murdered our people thereon, has rendered it necessary temporarily to occupy, by our armed forces, a portion of the territory of that friendly State. Until, by the restoration of law and order therein, a repetition of such incursions is improbable, the necessity for their remaining will continue. Intervention, implying as it does military subjugation, is revolting to the people of the United States, notwithstanding the provocation to that course has been great, and should be resorted to, if at all, only as a last resort. The stubborn resistance of the President and his advisers to every demand and suggestion to enter upon it, is credible alike to them and to the people in whose name he speaks.

Merchant Marine. Immediate provision should be made for the development of the carrying trade of the United States. Our foreign commerce has in the past been subject to many unnecessary and vexatious obstacles in the way of legislation of Republican Congresses. Until the recent Democratic tariff legislation it was hampered by unreasonable burdens of taxation. Until the recent banking legislation, it had at its disposal few of the necessary instrumentalities of international credit and exchange. Until the formulation of the pending act to promote the construction of a merchant marine it lacked even the prospect of adequate carriage by sea. We heartily indorse the purposes and policy of the pending shipping bill and favor all such additional measures of constructive or remedial legislation as may be necessary to restore our flag to the seas and to provide further facilities for our foreign commerce, particularly such laws as may be made to remove unfair conditions of competition in the dealings of American merchants and producers with competitors in foreign markets.

Conservation. For the safeguarding and quickening of the life of our own people we favor the conservation and development of the natural resources of the country through a policy which shall be positive rather than negative—a policy which shall not withhold such resources from development but which, while permitting and encouraging their use, shall prevent both waste and monopoly in their exploitation, and we earnestly favor the passage of acts which will accomplish these objects and we reaffirm the declaration of the platform of 1912 on this subject. The policy of reclaiming our arid lands should be steadily adhered to.

The Administration and the Farmer. We favor the vigorous prosecution of investigations and plans to render agriculture more profitable and country life more healthful, comfortable and attractive, and we believe that this should be a dominant aim of the nation as well as of the States. With all its recent improvement, farming still lags behind other occupations

in development as a business, and the advantages of an advancing civilization have not accrued to rural communities in a fair proportion. Much has been accomplished in this field under the present Administration—far more than under any previous Administration. In the Federal Reserve act of the last Congress, and the Rural Credits act of the present Congress, the machinery has been created which will make credit available to the farmer constantly and readily and he has at last been put upon a footing of equality with the merchant and the manufacturer in securing the capital necessary to carry on his enterprises. Grades and standards necessary to the intelligent and successful conduct of the business of agriculture have also been established, or are in the course of establishment by law.

The long-needed Cotton Futures act, passed by the Sixty-third Congress, has now been in successful operation for nearly two years. A Grain Grades bill, long needed, and a permissive Warehouse bill, intended to provide better storage facilities and to enable the farmer to obtain certificates upon which he may secure advances of money, have been passed by the House of Representatives, have been favorably reported to the Senate and will probably become law during the present session of the Congress. Both houses have passed a good roads measure, which will be of far-reaching benefit to all agricultural communities. Above all, the most extraordinary and significant progress has been made, under the direction of the Department of Agriculture in extending and perfecting practical farm demonstration work which is so rapidly substituting scientific for empirical farming. But it is also necessary that rural activities should be better directed through co-operation and organization, that unfair methods of competition should be eliminated and the conditions requisite for the just, orderly, and economical marketing of farm products created.

We approve the Democratic Administration for having emphatically directed attention for the first time to the essential interests of agriculture involved in farm marketing and finance, for creating the office of markets and rural organization in connection with the Department of Agriculture and for extending the co-operative machinery necessary for conveying information to farmers by means of demonstrations. We favor continued liberal provision, not only for the benefit of production, but also for the study and solution of problems of farm marketing and finance and for the extension of existing agencies for improving country life.

Good Roads. The happiness, comfort and prosperity of rural life, and the development of the city, are alike conserved by the construction of public highways. We, therefore, favor national aid in the construction of post roads and roads for military purposes.

Government Employment. We hold that life, health, and strength of the men, women, and children of the nation are its greatest asset and that in the conservation of these the Federal Government, wherever it acts as the employer of labor, should both on its own account and as an example, put into effect the following principles of just employment:

1. A living wage for all employees.
2. A working day not to exceed eight hours, with one day of rest in seven.
3. The adoption of safety appliances and the establishment of thoroughly sanitary conditions of labor.
4. Adequate compensation for industrial accidents.
5. The standards of the "Uniform Child Labor Law," wherever minors are employed.
6. Such provisions for decency, comfort, and health in the employment of women as should be accorded the mothers of the race.
7. An equitable retirement law providing for the retirement of superannuated and disabled employees of the civil service to the end that a higher standard of efficiency may be maintained.

We believe also that the adoption of similar principles should be urged and applied in the legislation of the States with regard to labor within their borders, and that through every possible agency the life and health of the people of the nation should be conserved.

Labor. We declare our faith in the Seamen's act, passed by the Democratic Congress, and we promise our earnest continuance of its enforcement.

We favor the speedy enactment of an effective Federal Child Labor law and the regulation of the shipment of prison-made goods in interstate commerce.

We favor the creation of a Federal bureau of safety in the Department of Labor, to gather facts concerning industrial hazards and to recommend legislation concerning the maiming and killing of human beings.

We favor the extension of the powers and functions of the Federal Bureau of Mines.

We favor the development upon a systematic scale of the means already begun under the present Administration to assist laborers throughout the nation to seek and obtain employment, and the extension by the Federal Government of the same assistance and encouragement as is now given to agricultural training.

We heartily commend our newly established Department of Labor for its excellent record in settling industrial strikes by personal advices and through conciliating agents.

Public Health. We favor a thorough reconsideration of the means and methods by which the Federal Government handles questions of public health, to the end that human life may be conserved by the elimination of loathsome diseases, the improvement of sanitation and the diffusion of a knowledge of disease prevention.

We favor the establishment by the Federal Government of tuberculosis sanatoriums for needy tubercular patients.

Senate Rules. We favor such an alteration of the rules of procedure of the Senate of the United States as will permit the prompt transaction of the nation's legislative business.

Economy and the Budget. We demand careful economy in all expenditures for the support of the Government, and to that end favor a return by the House of Representatives to its former practice of initiating and preparing all appropriation bills through a single committee chosen from its membership, in order that responsibility may be centred, expenditures standardized and made uniform, and waste and duplication in the public service as much as possible avoided. We favor this as a practicable first step toward a budget system.

Civil Service. We reaffirm our declarations for the rigid enforcement of the civil service laws.

Philippine Islands. We heartily indorse the provisions of the bill recently passed by the House of Representatives, further promoting self-government in the Philippine Islands as being in fulfillment of the policy declared by the Democratic Party in its last national platform, and we reiterate our indorsement of the purpose of ultimate independence for the Philippine Islands, expressed in the preamble of that measure.

Woman Suffrage. We recommend the extension of the franchise to the women of the country by the States upon the same terms as to men.

Protection of Citizens. We again declare the policy that the sacred rights of American citizenship must be preserved at home and abroad, and that no treaty with any other Government shall receive the sanction of our Government which does not expressly recognize the absolute equality of all our citizens, irrespective of race, creed, or previous nationality, and which does not recognize the right of expatriation. The American Government should protect American citizens in their rights not only at home but abroad, and any country having a Government should be held to strict accountability for any wrongs done them, either to person or property. At the earliest practical opportunity, our country should strive earnestly for peace among the warring nations of Europe and seek to bring about the adoption of the fundamental principle of justice and humanity, that all men shall enjoy equality of right and freedom from discrimination in the lands wherein they dwell.

Prison Reform. We demand that the modern principles of prison reform be applied in our Federal penal system. We favor such work for prisoners as shall give them training

in remunerative occupations, so that they may make an honest living when released from prison; the setting apart of the net wages of the prisoner to be paid to his dependent family or to be reserved for his own use upon his release; the liberal extension of the principles of the Federal Parole law, with due regard both to the welfare of the prisoner and the interests of society; the adoption of the probation system, especially in the case of first offenders not convicted of serious crimes.

Pensions. We renew the declarations of recent Democratic platforms relating to generous pensions for soldiers and their widows, and call attention to our record of performance in this particular.

Waterways and Flood Control. We renew the declaration in our last two platforms relating to the development of our waterways. The recent devastation of the Lower Mississippi Valley and several other sections by floods accentuates the movement for the regulation of river flow by additional bank and levee protection below and diversion, storage, and control of the flood waters above, and their utilization for beneficial purposes in the reclamation of arid and swamp lands, and development of water power, instead of permitting the floods to continue as heretofore, agents of destruction. We hold that the control of the Mississippi River is a national problem. The preservation of the depth of its waters for purposes of navigation, the building of levees and works of bank protection to maintain the integrity of its channel and prevent the overflow of its valley resulting in the interruption of interstate commerce, the disorganization of the mail service and the enormous loss of life and property, impose an obligation which alone can be discharged by the national Government.

We favor the adoption of a liberal and comprehensive plan for the development and improvement of our harbors and inland waterways with economy and efficiency, so as to permit their navigation by vessels of standard draught.

Alaska. It has been and will be the policy of the Democratic Party to enact all laws necessary for the speedy development of Alaska and its great natural resources.

Territories. We favor granting to the people of Alaska, Hawaii, and Porto Rico the traditional Territorial Government accorded to all Territories of the United States since the beginning of our Government and we believe the officials appointed to administer the Government of those several Territories should be qualified by previous bona fide residence.

Candidates. We unreservedly indorse our President and Vice President, Woodrow Wilson of New Jersey and Thomas Riley Marshall of Indiana, who have performed the functions of their great offices faithfully and impartially and with distinguished ability.

In particular, we commend to the American people the splendid diplomatic victories of our great President, who has preserved the vital interests of our Government and its citizens, and kept us out of war.

Woodrow Wilson stands today the greatest American of his generation.

Conclusion. This is a critical hour in the history of America, a critical hour in the history of the world. Upon the record above set forth which shows great constructive achievement in following out a consistent policy for our domestic and internal development; upon the record of the Democratic Administration, which has maintained the honor, the dignity, and the interests of the United States, and at the same time retained the respect and friendship of all the nations of the world, and upon the great policies for the future strengthening of the life of our country, the enlargement of our national vision and the ennobling of our international relations, as set forth above, we appeal with confidence to the voters of the country.

TELLING DISTANCE BY SOUND

There is an old saying that if you can count five between the flash and thunder you are safe. Modern science tells us that if you can see the flash at all you are safe, because if it struck you you would have no time to see it. The speed of lightning is about 180 times that of sight.

The old idea was that if you could count five the storm was a mile away, which was considered a safe distance. Sound travels at the rate of 1,142 feet a second, or about a mile in five seconds. In order to count seconds accurately many photographers start by saying to themselves: "No one thou-

sand, one one thousand, two one thousand, three one thousand," etc. This gives about the right space between each count of one, two, three, etc., if you stop at the number of seconds you want to time. With a little practice with a watch beside you this is accurate up to half a minute or more.

If you hear a steam whistle blowing and note the instant it stops you can count the seconds until you lose the sound, and by allowing a fifth of a mile for each second you can judge the distance. The same is true of guns, or an explosion, or even of hammering, or any loud sounds.

VOTE FOR PRESIDENT, 1912

State	ELECTORAL VOTE.			POPULAR VOTE.						
	Re- pub- lican.	Dem- ocrat- ic.	Pro- gres- sive.	Republi- can.	Democrat.	Progres- sive.	Prohibi- tion.	Socialist.	Socialist Labor.	Total.*
Alabama.....		12		9,732	82,438	22,680		3,029		117,879
Arizona.....		3		3,021	10,324	6,949	265	3,163		23,722
Arkansas.....		9		24,467	68,838	21,673	898	8,153		124,029
California.....		2	11	3,914	283,436	283,610	23,366	79,201		673,527
Colorado.....		6		58,386	114,232	72,306	5,063	16,418	475	266,880
Connecticut.....		7		68,324	74,561	34,129	2,068	10,056	1,260	190,398
Delaware.....		3		15,997	22,631	8,886	623	556		48,693
Florida.....		6		4,279	36,417	4,535	1,854	4,806		51,891
Georgia.....		14		5,191	93,076	21,980	147	1,026		121,420
Idaho.....		4		32,810	33,921	25,527	1,537	11,960		105,755
Illinois.....		29		253,593	405,048	386,478	15,710	81,278	4,066	1,146,173
Indiana.....		15		151,267	281,890	162,007	19,249	36,931	3,130	654,474
Iowa.....		13		119,805	185,325	161,819	8,440	16,967		492,356
Kansas.....		10		74,845	143,663	120,210		26,779		481,009
Kentucky.....		13		115,512	219,584	102,766	3,233	11,647	956	338,186
Louisiana.....		10		3,834	60,971	9,323		5,249		79,377
Maine.....		6		26,545	51,113	48,495	946	2,541		129,640
Maryland.....		8		54,956	112,674	57,789	2,244	3,996	322	231,981
Massachusetts.....		18		155,948	173,408	142,228	2,754	12,616	1,102	488,056
Michigan.....		15		152,244	150,751	214,584	8,934	23,211	1,252	550,976
Minnesota.....		12		64,334	106,426	125,856	7,886	27,505	2,212	334,219
Mississippi.....		10		1,595	57,227	3,645		2,061		64,528
Missouri.....		18		207,821	330,746	124,371	5,380	28,466	1,778	698,562
Montana.....		4		18,512	27,941	22,456	32	10,885		79,826
Nebraska.....		8		54,029	109,008	72,614	3,383	10,174		249,208
Nevada.....		3		3,196	7,986	5,620		3,313		20,115
New Hampshire.....		4		32,927	34,724	17,794	535	1,980		87,560
New Jersey.....		14		88,834	170,282	145,409	2,875	15,900	1,322	424,622
New Mexico.....		3		17,900	22,139	8,347		2,859		51,245
New York.....		45		455,428	655,475	390,021	19,427	63,381	4,251	1,587,983
North Carolina.....		12		29,139	144,507	69,667	1,025	117		244,455
North Dakota.....		5		23,090	29,555	25,726	1,243	6,966		86,580
Ohio.....		24		278,168	424,834	229,807	11,511	90,144	2,630	1,037,094
Oklahoma.....		10		90,786	119,156		2,185	41,674		253,801
Oregon.....		5		34,673	47,064	37,600	4,360	13,343		137,040
Pennsylvania.....		38		273,305	395,619	447,426	19,533	80,915	704	1,217,502
Rhode Island.....		5		27,703	30,412	16,878	616	2,049	236	77,894
South Carolina.....		9		536	48,357	1,293		164		50,350
South Dakota.....		5		48,942	58,811	58,811	3,910	4,662		116,325
Tennessee.....		12		59,444	130,335	53,725	825	3,492		247,821
Texas.....		20		26,745	219,489	28,530	1,698	24,896	430	301,788
Utah.....		4		42,100	36,579	24,174		9,023	509	112,385
Vermont.....		4		23,332	15,354	22,132	1,095	928		62,841
Virginia.....		12		23,288	90,332	21,777	709	820	50	136,976
Washington.....		7		70,445	86,840	113,698	9,810	40,134	1,872	322,799
West Virginia.....		8		56,667	113,046	78,977	4,534	15,336		268,560
Wisconsin.....		13		130,695	164,228	62,460	8,586	33,481	522	399,972
Wyoming.....		3		14,560	15,310	9,232	434	2,760		42,296
Total.....	8	435	88	3,483,922	6,286,214	4,126,020	208,923	897,011	29,079	15,031,169
Plurality.....		347			2,160,194					

*Figures do not include blank or void ballots or votes cast for names not appearing on any of the electoral tickets specified in the table.

HUDSON RIVER BRIDGE, A POSSIBILITY

The tallest bridge towers in the world will loom over the Hudson when the States of New York and New Jersey erect the great suspended roadway that is now being planned. From bedrock to pinnacle the twin towers will be 745 feet high, only 255 feet short of the height of the Eiffel Tower. Their height over water will be 600 feet.

The New York State Bridge Commission came to the conclusion that the best place to locate a bridge would be between Fifty-seventh and Fifty-eighth Streets in Manhattan, from Ninth Avenue to the Boulevard in Weehawken. It is suggested also that a bridge could be built across the Hudson at 110th Street and that 179th Street at Fort Washington Park would be another excellent location.

As the plans stand now a bridge 8,330 feet long is to be built.

It will clear the river by 170 feet and will have two driveways each thirty-six feet wide, and two sidewalks each eight feet wide, in addition to the roadways for trolley cars.

The system of tunnels to be built in connection with improving communication between New York and New Jersey will run between Canal Street in Manhattan and Twelfth Street in Jersey City. There are to be twin tunnels for vehicles with roadways seventeenfeet wide. The tunnels will cost \$11,000,000, it is estimated.

The commission finds that there is an average traffic of 5,000,000 vehicles a year between New York and New Jersey and that the daily weekday traffic is about 19,660 vehicles. The proposed tunnels would take care of most of this traffic and would be, the engineers say, an immense saving to merchants and manufacturers.

VOTE FOR PRESIDENT

PRESIDENTIAL VOTE 1860-1912							
Year and Party	Candidate and State	Total Vote	Elect. Vote	Year and Party	Candidate and State	Total Vote	Elect. Vote
1860				1892			
Rep.....	ABRAHAM LINCOLN, Ill.....	1,866,352	180	Dem.....	GROVER CLEVELAND, N. Y....	5,554,414	277
Dem.....	Stephen A. Douglas, Ill.....	1,375,157	12	Rep.....	Ben. Harrison, Ind.....	5,190,802	145
Dem.....	J. C. Breckenridge, Ky.....	845,763	72	Peop.....	James B. Weaver, Iowa.....	1,027,329	22
Union.....	John Bell, Tenn.....	589,581	39	Prohib.....	John Bidwell, Cal.....	271,058	.....
				Soc. Lab.....	Simon Wing, Mass.....	21,164	.....
1864				1896			
Rep.....	ABRAHAM LINCOLN, Ill.....	2,216,067	*212	Rep.....	WILLIAM MCKINLEY, Ohio.....	7,035,638	271
Dem.....	George B. McClellan, N. J.....	1,808,725	21	Dem.....	William J. Bryan, Neb.....	6,467,946	176
				Peop.....	William J. Bryan, Neb.....		
1868				Prohib.....	Joshua Levering, Md.....	141,676	.....
Rep.....	U. S. GRANT, Ill.....	3,015,071	*214	Nat.-Dem.....	John M. Palmer, Ill.....	131,529	.....
Dem.....	Horatio Seymour, N. Y.....	2,709,615	80	Soc. Lab.....	Charles H. Matchett, N. Y.....	36,454	.....
				Nat.....	Charles E. Bentley, Neb.....	13,969	.....
1872				1900			
Rep.....	U. S. GRANT, Ill.....	3,597,070	286	Rep.....	WILLIAM MCKINLEY, Ohio.....	7,219,530	292
D. & Lib. R.....	Horace Greeley, N. Y.....	2,834,079	.....	Dem.....	William J. Bryan, Neb.....	6,358,071	155
Dem.....	Charles O'Conor, N. Y.....	29,408	.....	Prohib.....	John G. Woolley, Ill.....	209,166	.....
Temp.....	James Black, Pa.....	5,608	.....	A.-F. Peop.....	Wharton Barker, Pa.....	50,373	.....
				Soc. Dem.....	Eugene V. Debs, Ind.....	96,768	.....
1876				Soc. L.....	Jos. F. Malloney, Mass.....	32,751	.....
Rep.....	RUTHERFORD B. HAYES, O.....	4,033,950	185	U. Christian.....	J. F. R. Leonard, Iowa.....	10,09	.....
Dem.....	Samuel J. Tilden, N. Y.....	4,284,885	184	U. Reform.....	Seth H. Ellis, Ohio.....	5,698	.....
Greenback.....	Peter Cooper, N. Y.....	81,740	.....			
Prohib.....	Green Clay Smith, Ky.....	9,522	.....	1904			
Amer.....	James B. Walker, Ill.....	2,636	.....	Rep.....	THEODORE ROOSEVELT, N. Y.....	7,628,834	336
				Dem.....	Alton B. Parker, N. Y.....	5,084,491	140
1880				Soc.....	Eugene V. Debs, Ind.....	402,460	.....
Rep.....	JAMES A. GARFIELD, Ohio.....	4,449,053	214	Prohib.....	Silas C. Swallow, Pa.....	259,257	.....
Dem.....	W. S. Hancock, Pa.....	4,442,030	155	Peop.....	Thomas E. Watson, Ga.....	114,753	.....
Greenback.....	James B. Weaver, Iowa.....	307,306	.....	Soc. L.....	Charles H. Corrigan, N. Y.....	33,724	.....
Prohib.....	Neal Dow, Me.....	10,305	.....			
Amer.....	John W. Phelps, Vt.....	707	.....	1908			
				Rep.....	WILLIAM H. TAFT, Ohio.....	7,679,006	321
1884				Dem.....	William J. Bryan, Neb.....	6,409,106	162
Dem.....	GROVER CLEVELAND, N. Y.....	4,911,017	219	Soc.....	Eugene V. Debs, Ind.....	420,820	.....
Rep.....	James G. Blaine, Me.....	4,848,334	182	Prohib.....	Eugene W. Chafin, Ill.....	252,683	.....
Prohib.....	John P. St. John, Kan.....	151,809	.....	Ind. League.....	Thos. L. Hisgen, Mass.....	85,562	.....
Greenback.....	Benj. F. Butler, Mass.....	133,825	.....	Peop.....	Thos. E. Watson, Ga.....	28,131	.....
				Soc. L.....	August Gillhaus, N. Y.....	13,825	.....
1888				1912			
Rep.....	BENJAMIN HARRISON, Ind.....	5,444,337	233	Dem.....	WOODROW WILSON, N. J.....	6,293,019	435
Dem.....	Grover Cleveland, N. Y.....	5,540,050	168	Rep.....	William H. Taft, Ohio.....	3,484,956	8
Prohib.....	Clinton B. Fisk, N. J.....	250,125	.....	Prog.....	Theodore Roosevelt, N. Y.....	4,119,507	88
U. Labor.....	A. J. Streeter, Ill.....	146,897	.....	Soc.....	Eugene V. Debs, Ind.....	901,873	.....
United L.....	R. H. Cowdry, Ill.....	2,803	.....	Prohib.....	Eugene W. Chafin, Ill.....	207,928	.....
Amer.....	Jas. L. Curtis, N. Y.....	1,591	.....	Soc. L.....	Arthur E. Reimer, Mass.....	29,259	.....
Soc.....		2,063	.....			

*States not voting possessed an electoral vote of 81.

†States not voting possessed an electoral vote of 23.

VOTE FOR PRESIDENT, 1908

STATE	EL. VOTE			POPULAR VOTE			STATE	EL. VOTE			POPULAR VOTE		
	Taft, Rep.	Bryan, Dem.		Taft, Rep.	Bryan, Dem.	Debs, Soc.		Taft, Rep.	Bryan, Dem.		Taft, Rep.	Bryan, Dem.	Debs, Soc.
Alabama.....	..	11	25,308	74,374	1,399	5,842	New Hampshire.....	4	..	53,149	33,655	1,299	10,253
Arkansas.....	..	9	56,760	87,015	5,842	28,659	New Jersey.....	12	..	265,326	182,567	10,253	38,451
California.....	10	..	214,398	127,492	5,113	7,974	New York.....	39	..	870,070	667,468	38,451	378
Colorado.....	..	5	123,700	126,644	5,113	7,974	North Carolina.....	..	12	114,937	136,995	7,339	2,421
Connecticut.....	7	..	112,915	68,255	1,239	2,39	North Dakota.....	4	..	57,680	32,885	1,239	33,795
Delaware.....	3	..	25,014	22,071	3,747	584	Ohio.....	23	..	572,312	502,721	33,795	21,734
Florida.....	..	5	10,654	31,104	3,747	584	Oklahoma.....	..	7	110,474	122,563	7,339	7,339
Georgia.....	..	13	41,692	72,413	3,747	584	Oregon.....	4	..	62,530	38,049	7,339	3,913
Idaho.....	3	..	52,621	36,162	34,691	13,476	Pennsylvania.....	34	..	745,779	448,778	33,913	1,365
Illinois.....	27	..	629,929	450,795	13,476	8,287	Rhode Island.....	4	..	43,942	24,706	1,365	100
Indiana.....	15	..	348,993	338,262	13,476	8,287	South Carolina.....	..	9	3,965	62,290	2,846	1,870
Iowa.....	13	..	275,210	200,771	12,420	4,060	South Dakota.....	4	..	67,536	40,266	2,846	7,870
Kansas.....	10	..	197,216	161,209	2,538	1,758	Tennessee.....	..	12	118,324	135,608	1,870	4,895
Kentucky.....	..	13	235,711	244,092	2,538	1,758	Texas.....	..	18	65,666	217,302	7,870	4,895
Louisiana.....	..	9	8,958	63,568	1,758	3,233	Utah.....	3	..	61,028	42,601	4,895	.....
Maine.....	6	..	66,987	35,403	10,781	11,586	Vermont.....	4	..	39,552	11,496	.....	255
Maryland.....	2	6	116,513	115,908	10,781	11,586	Virginia.....	..	12	52,573	82,946	.....	14,177
Massachusetts.....	16	..	265,966	155,543	11,586	14,527	Washington.....	5	..	106,062	58,691	14,177	3,679
Michigan.....	14	..	335,580	175,771	14,527	978	West Virginia.....	7	..	137,869	111,418	3,679	28,170
Minnesota.....	11	..	195,843	109,401	15,431	5,855	Wisconsin.....	13	..	247,747	166,632	28,170	1,715
Mississippi.....	..	10	4,363	60,287	15,431	5,855	Wyoming.....	3	..	20,846	14,918	1,715	.....
Missouri.....	18	..	347,203	346,574	15,431	5,855							
Montana.....	3	..	32,333	29,326	3,524	2,103	Total.....	321	162	7,679,006	6,409,106	420,820	.....
Nebraska.....	..	8	126,997	131,099	3,524	2,103	Plurality.....	159	..	1,269,900	.....	.....	.....
Nevada.....	..	3	10,775	11,212	2,103	.....						

PRESIDENTS OF UNITED STATES

	Name	Born	Native State	Age at Election	State from which Elected	Years of Service	Died	Age at Death
1	George Washington	Feb. 22, 1732	Virginia	57	Virginia	8	Dec. 14, 1799	67
2	John Adams	Oct. 30, 1735	Mass.	61	Mass.	4	July 4, 1826	90
3	Thomas Jefferson	April 13, 1743	Virginia	57	Virginia	8	July 4, 1826	83
4	James Madison	Mch. 16, 1751	Virginia	57	Virginia	8	June 28, 1836	85
5	James Monroe	April 28, 1758	Virginia	58	Virginia	8	July 4, 1831	73
6	John Quincy Adams	July 11, 1767	Mass.	57	Mass.	4	Feb. 23, 1848	80
7	Andrew Jackson	Mch. 15, 1767	N. Carolina	61	Tenn.	8	June 8, 1845	78
8	Martin Van Buren	Dec. 5, 1782	New York	54	New York	4	July 24, 1862	79
9	Wm. Henry Harrison	Feb. 9, 1773	Virginia	68	Ohio	1 mo.	April 4, 1841	68
10	John Tyler	Mch. 29, 1790	Virginia	51	Virginia	4	Jan. 18, 1862	71
11	James K. Polk	Nov. 2, 1795	N. Car.	49	Tenn.	4	June 15, 1849	53
12	Zachary Taylor	Sept. 24, 1784	Virginia	64	La.	1½	July 9, 1850	65
13	Millard Fillmore	Feb. 7, 1800	New York	50	New York	2½	Mch. 8, 1874	74
14	Franklin Pierce	Nov. 23, 1804	N. H.	48	N. H.	4	Oct. 8, 1869	64
15	James Buchanan	April 23, 1791	Penn.	65	Penn.	4	June 1, 1868	77
16	Abraham Lincoln	Feb. 12, 1809	Kentucky	52	Illinois	4½	April 15, 1865	56
17	Andrew Johnson	Dec. 29, 1808	N. Carolina	56	Tenn.	3½	July 31, 1875	66
18	Ulysses S. Grant	April 27, 1822	Ohio	46	Illinois	8	July 23, 1885	63
19	Rutherford B. Hayes	Oct. 4, 1822	Ohio	54	Ohio	4	Jan. 17, 1893	70
20	James A. Garfield	Nov. 19, 1831	Ohio	49	Ohio	½	Sept. 19, 1881	49
21	Chester A. Arthur	Oct. 5, 1830	Vermont	50	New York	3½	Nov. 18, 1886	56
22	Grover Cleveland	Mch. 18, 1837	N. Jersey	47	New York	4	June 24, 1908	71
23	Benjamin Harrison	Aug. 20, 1833	Ohio	55	Indiana	4	Mch. 13, 1901	67
24	Grover Cleveland	Mch. 18, 1837	N. Jersey	55	New York	4	June 24, 1908	71
25	William McKinley	Jan. 29, 1843	Ohio	54	Ohio	4½	Sept. 14, 1901	58
26	Theodore Roosevelt	Oct. 27, 1858	New York	42	New York	7½	Living	—
27	William H. Taft	Sept. 15, 1857	Ohio	51	Ohio	4	Living	—
28	Woodrow Wilson	Dec. 28, 1856	Virginia	56	New Jersey	—	Living	—

VICE PRESIDENTS OF UNITED STATES

	Name	Born	Native State	State from which elected	Years of service	Died	Age at Death
1	John Adams	Oct. 30, 1735	Mass.	Mass.	8	July 4, 1826	90
2	Thos. Jefferson	April 13, 1743	Virginia	Virginia	4	July 4, 1826	83
3	Aaron Burr	Feb. 6, 1756	New Jersey	New York	4	Sept. 14, 1836	80
4	Geo. Clinton	July 26, 1739	New York	New York	7	April 20, 1812	73
5	Elbridge Gerry	July 17, 1744	Mass.	Mass.	1½	Nov. 23, 1835	70
6	Daniel D. Tompkins	June 21, 1774	New York	New York	8	June 11, 1835	51
7	John C. Calhoun	Mar. 18, 1782	So. Carolina	So. Carolina	7½	Mar. 31, 1850	68
8	Martin Van Buren	Dec. 5, 1782	New York	N-w York	4	July 24, 1862	79
9	Richard M. Johnson	Oct. 17, 1781	Kentucky	Kentucky	4	Nov. 19, 1850	70
10	John Tyler	Mar. 29, 1790	Virginia	Virginia	1 mo.	Jan. 18, 1862	72
11	George M. Dallas	July 10, 1792	Pennsylvania	Pennsylvania	4	Dec. 31, 1864	72
12	Millard Fillmore	Jan. 7, 1800	New York	New York	1	Mar. 7, 1874	74
13	William R. King	April 6, 1786	No. Carolina	Alabama	1 mo.	April 18, 1853	67
14	John C. Breckinridge	Jan. 21, 1821	Kentucky	Kentucky	4	May 17, 1875	54
15	Hannibal Hamlin	Aug. 27, 1809	Maine	Maine	4	July 4, 1891	81
16	Andrew Johnson	Dec. 29, 1808	No. Carolina	Tenn.	1 mo.	July 31, 1875	66
17	Schuyler Colfax	Mar. 23, 1823	New York	Indiana	4	Jan. 18, 1885	62
18	Henry Wilson	Feb. 12, 1812	New Hamp.	Mass.	2½	Nov. 22, 1875	63
19	William A. Wheeler	June 30, 1819	New York	New York	4	June 4, 1887	68
20	Chester A. Arthur	Oct. 5, 1830	Vermont	New York	6 mos.	Nov. 18, 1886	56
21	Thos. A. Hendricks	Sept. 7, 1819	Ohio	Indiana	6 mos.	Nov. 25, 1885	66
22	Levi P. Morton	May 16, 1824	Vermont	New York	4	Living	—
23	Adlai E. Stevenson	Oct. 23, 1835	Kentucky	Illinois	4	June 14, 1914	78
24	Garret A. Hobart	June 3, 1844	New Jersey	New Jersey	2½	Nov. 21, 1899	55
25	Theodore Roosevelt	Oct. 27, 1858	New York	New York	6 mos.	Living	—
26	Chas. W. Fairbanks	May 11, 1852	Ohio	Indiana	4	Living	—
27	Jas. S. Sherman	Oct. 24, 1855	New York	New York	3½	Oct. 30, 1912	57
28	Thomas R. Marshall	Mar. 14, 1854	Indiana	Indiana	—	Living	—

CORPORATIONS IN THE UNITED STATES.

Corporations of the United States earned \$3,304,000,000 above all expenses during the calendar year of 1912, exceeding all previous records, since the enactment of the corporation tax law, by \$400,000,000.

The increased prosperity of the corporations is expected to yield the Federal Government more than \$36,000,000, in-

cluding \$3,000,000 of omitted taxes for previous years. This represents the greatest amount of corporation taxes ever assessed by the Treasury, exceeding the previous year by \$7,000,000.

The total number of corporations during 1912 was about 310,000, an increase of 7 per cent. over 1911, and compared with increases of 6 per cent. in 1911 over 1910, and less than 4 per cent. in 1910 over 1909.

VACANT PUBLIC LANDS IN THE UNITED STATES

Unoccupied public lands, subject to settlement and entry, are to be found in all the states west of the Mississippi River except Iowa and Texas. There is also considerable vacant public land in Michigan, Florida, Alabama and Mississippi. Persons who desire to make homestead entry should first decide where they wish to locate, then go or write to the local land office of the district in which the lands are situated and obtain from the records diagrams of vacant lands. Following is a list of the United States land offices:

ALABAMA:
Montgomery.

ALASKA:
Fairbanks.
Juneau.
Nome.

ARIZONA:
Phoenix.

ARKANSAS:
Camden.
Harrison.
Little Rock.

CALIFORNIA:
Eureka.
Independence.
Los Angeles.
Sacramento.
San Francisco.
Susanville.
Visalia.

COLORADO:
Del Norte.
Denver.
Durango.
Glenwood Springs.
Hugo.
Lamar.
Leadville.
Montrose.
Pueblo.
Sterling.

FLORIDA:
Gainesville.

IDAHO:
Blackfoot.
Boise.
Coeur d'Alene.
Hailey.
Lewiston.

KANSAS:
Dodge City.
Topeka.

LOUISIANA:
Baton Rouge.

MICHIGAN:
Marquette.

MINNESOTA:
Cass Lake.
Crookston.
Duluth.

MISSISSIPPI:
Jackson.

MISSOURI:
Springfield.

MONTANA:
Billings.
Bozeman.
Glasgow.
Great Falls.
Havre.
Helena.
Kalispell.
Lewistown.
Miles City.
Missoula.

NEBRASKA:
Alliance.
Broken Bow.
Lincoln.
North Platte.
O'Neill.
Valentine.

NEVADA:
Carson City.
Elko.

NEW MEXICO:
Clayton.
Fort Sumner.
Las Cruces.
Roswell.
Santa Fe.
Tucumcari.

NORTH DAKOTA:
Bismarck.
Dickinson.
Minot.
Williston.

OKLAHOMA:
Guthrie.

OREGON:
Burns.
La Grande.
Lakeview.
Portland.
Roseburg.
The Dalles.
Vale.

SOUTH DAKOTA:
Bellefourche.
Gregory.
Lemmon.
Pierre.
Rapid City.
Timber Lake.

UTAH:
Salt Lake City.
Vernal.

WASHINGTON:
North Yakima.
Seattle.
Spokane.
Vancouver.
Walla Walla.
Waterville.

WISCONSIN:
Wausau.

WYOMING:
Buffalo.
Cheyenne.
Douglas.
Evanston.
Lander.
Sundance.

The register and receiver at any of these offices will advise the steps to take in making entry. Before entry a personal inspection of the lands should be made, to ascertain if they are suitable. Applicants should fully examine each legal subdivision for which they make application, as satisfactory information regarding the character and occupancy of public lands can be obtained in no other way. As each applicant must swear that he is well acquainted with the land described in his application, and as all entries are made subject to the rights of prior settlers, the necessity for this careful inspection is apparent. If the applicant is satisfied on the above points, entry can be made at the local land office in the manner prescribed by law, under the direction of the local land officers. The following table shows by states the lands unoccupied July 1st, 1916.

State	Surveyed	Area in acres Unsurveyed	Total
Alabama.....	42,680.		42,680
Arizona.....	6,566,288.	17,030,931.	23,597,219
Arkansas.....	402,219.		402,219
California.....	15,777,934.	4,248,065.	20,025,999
Colorado.....	12,905,344.	2,002,783.	14,908,127
Florida.....	135,237.		135,237
Idaho.....	8,831,490.	6,679,071.	15,510,561
Kansas.....	56,018.		56,018
Louisiana.....	44,804.		44,804
Michigan.....	90,540.		90,540
Minnesota.....	798,804.		798,804
Mississippi.....	30,374.		30,374
Missouri.....	952.		952
Montana.....	9,229,154.	7,420,571.	16,649,725
Nebraska.....	137,936.	8,320.	146,256
Nevada.....	30,529,318.	24,845,759.	55,375,077
New Mexico.....	18,437,388.	7,900,991.	26,338,379
North Dakota.....	381,199.		381,199
Oklahoma.....	55,250.		55,250
Oregon.....	13,942,348.	1,395,461.	15,337,809
South Dakota.....	2,328,807.	53,781.	2,382,588
Utah.....	14,435,859.	18,532,978.	32,968,837
Washington.....	982,783.	149,788.	1,132,571
Wisconsin.....	5,872.		5,872
Wyoming.....	26,567,740.	1,960,752.	28,528,492
Grand total.....	162,716,338.	92,229,251.	254,945,589

The unappropriated lands in Alaska are not included herein. The total area of Alaska is 378,165,760 acres, of which about 15,500,000 acres are reserved. Approximately 740,000 acres have been surveyed under the rectangular system.

For detailed information regarding vacant public lands, and suggestions to persons desiring to make homestead entries, address The Department of the Interior, General Land Office, Washington, D. C. Maps showing the location of vacant public land subject to entry are not issued by the General Land Office. This information can be reliably obtained only from the records of the various district land offices.

MUDDIEST OF RIVERS

The Missouri is the muddiest river in the Mississippi Valley, says The Overland Guidebook of the United States Geological Survey. It carries more silt than any other large river in the United States, except possibly the Rio Grande and the Colorado. For every square mile of country drained it carries down stream 381 tons of dissolved and suspended matter each year. In other words, the river gathers annually from the country that it drains more than 123,000,000 tons of silt and soluble matter, some of which it distributes over the flood plains below to form productive agricultural lands but most of which finds its way at last to the Gulf of Mexico.

It is by means of data of this kind that geologists compute the rate at which the lands are being eroded away. It has been shown that the Missouri River is lowering the surface of the land drained by it at the rate of one foot in 6,036 years. The surface of the United States as a whole is now being worn down at the rate of one foot in 9,120 years. It has been estimated that if this erosive action of the streams of the United States could have been concentrated on the Isthmus of Panama it would have dug in seventy-three days the canal which has just been completed, after ten years' work, with the most powerful appliances yet devised by man.

NATIONAL IRRIGATION

By J. B. BEADLE, *U. S. Reclamation Service*

The western half of the United States is for the most part arid in the sense that the rainfall is insufficient for crop production. The same area is largely public land, the property of the Nation. Hence the Nation has a direct as well as an indirect interest in aiding irrigation and in 1902 Congress passed the Reclamation Act, providing for the construction of irrigation or reclamation projects directly by the Federal Government. The proceeds from the disposal of public lands were constituted a special reclamation fund and the Reclamation Service was formed in the Department of the Interior to carry on the work. Twenty-five projects have been adopted for development and most of these have been finished or reached a stage of completion where the larger features are built and water is delivered to units of the project, leaving only the gradual extension of the distributary canals as settlement progresses.

RECLAMATION LAW

The "organic act" governing the operations of the Reclamation Service became law in June, 1902, and is commonly called the Reclamation Act. This has been amended and supplemented from time to time, particularly by what is called the Reclamation Extension Act of August 13, 1914. In its broad features the existing law provides for the following:

1. A reclamation fund composed of the receipts from the disposal of public lands in the arid States under the provisions of the various land laws. The fund now approximates a hundred million dollars.
2. The construction of irrigation systems to water public and adjacent private lands.
3. Practically free entry to the public lands under the irrigation projects, limiting any one citizen to a farm of such size as is capable of supporting a family.
4. Subdivision of the private lands by sale in small tracts, limiting the area to which water will be furnished one individual to 160 acres.
5. Repayment in easy terms, extending over a long period, of the cost of building the works by the holders of the lands benefited, the money going back into the reclamation fund for use on other projects.

COMPLETED WORK

The Reclamation Service has completed 25 projects or units to the point where the systems are operated and water supplied the farmers for crop production. The works so far constructed make water available for 1,500,000 acres, and the projects under way when completed will provide for nearly as much more. As incidental to the construction of large irrigation works the Service has engaged in a wide variety of engineering effort, including the construction and operation of reservoirs, canal systems, roads, telephone systems, power plants, transmission lines and railroads. On one project Portland cement was manufactured and on several others the material known as "sand cement" has been produced and used to advantage.

The Service has added some notable structures to the engineering monuments of the country. It has built the highest dam in the world on the Boise River, Idaho, and the one storing the greatest quantity of irrigation water on the Rio Grande, New Mexico. Its reservoirs are capable of holding 6,500,000

acre-feet, or two thousand billion gallons of water. It has excavated 130,000,000 cubic yards of earth and rock, placing 20,000,000 yards in dams and forming conduits aggregating 10,000 miles in length, including 25 miles of tunnels and 100 miles of flumes. Its canals placed end-on would circle the United States. Its structures of all kinds, large and small, dams, bridges, canal drops, checks, and the like total over 75,000 in number.

The Government projects now operated are listed in Table 2, which shows that the Reclamation Service delivered irrigation water to 850,000 acres during 1915, but that the systems were constructed well in advance of this, being capable of serving nearly 1,500,000 acres.

CROPS

As indicated in Table 2, the irrigated lands are already producing an annual crop worth approximately \$20,000,000, which should be steadily increased by more intensive farming as well as by the development of additional land. The new lands brought into production do not reach their full yield the first year, including young orchards just coming into bearing, new alfalfa stands giving a single cutting of hay, and other fields giving partial yields while being better prepared for full production. In 1915 the farmers on the Government projects harvested irrigated crops from over 750,000 acres. The 60,000 acres listed as irrigated, but not cropped, represent mainly young fruit trees and newly seeded alfalfa.

Alfalfa dominates all crop statistics from the irrigated areas. It occupies nearly half the cropped acreage and yields over one-third the total crop value. Its many virtues readily explain this popularity. Once established, or a "stand" secured, it is a hardy plant and continues almost indefinitely to furnish good annual yields without reseeding. It gives several yields or cuttings each year. It is a legume with the peculiar power of drawing from the atmosphere the nitrogen in which the soils of the arid region are often deficient and leaves behind more than it found of this most valuable of plant requirements. It is the deepest of subsoilers, penetrating with its many roots to a remarkable depth for the other essential elements of plant growth and improving the physical condition of the soil. It furnishes a hay of superior quality for conditioning and fattening stock, so effective in fact that its medicinal value is now being utilized for humans.

A wide variety of other crops are grown on the Government projects—hays, cereals, fruits, sugar beets, and cotton, as well as garden products. Barley is the leading cereal, largely replacing corn in importance in comparison with middle western farming. A considerable area is devoted to grains little seen in the humid States and belonging to the sorghum-corn family, including Kafir corn and milo maize. Beet-sugar factories have been established on a number of the projects, contracting with the farmers for a profitable crop on a large acreage. Cotton has furnished an industry of importance on the southern projects.

Fruit growing is naturally slow to become general, owing to the capital required and postponement of returns; but the industry is making steady progress and has become of major importance on the projects peculiarly suited to it. The Sunny-

TABLE I. BRIEF SUMMARY OF CONSTRUCTION RESULTS

		(To June 30, 1916)	
CONSTRUCTIONS		Number or quantity	MATERIALS HANDLED
			Excavation:
Dams.....	Miles.....	100	Earth.....Cubic yards.....123,000,000
Canals.....	.....	10,410	Indurated.....".....8,300,000
Tunnels.....	.....	26	Rock.....".....7,300,000
Dikes or levees.....	.....	92	
Irrigation and drain pipe.....	.....	360	Total.....".....138,600,000
Flumes.....	.....	100	Volume placed in dams:
Canal lining (concrete).....	.....	200	Masonry.....".....2,070,000
Roads.....	.....	850	Earth.....".....9,680,000
Railroads.....	.....	80	Rockfill and crib.....".....980,000
Telephone lines.....	.....	2,500	
Transmission lines.....	.....	425	Total.....21,350,000
Canal structures.....	.....	72,000	Riprap.....Cubic yards.....1,290,000
Bridges.....	.....	5,228	Paving.....Square yards.....688,000
Culverts.....	.....	6,370	Concrete.....Cubic yards.....2,838,000
Buildings.....	.....	1,000	Cement.....Barrels.....3,005,000

side Unit in Washington is the home of the famous Yakima Valley apples, and in 1914 produced over a million dollars worth of fruit.

TABLE II

Irrigation and crop results on Government projects, 1915¹

Project	Irrigable acreage ²	Irrig- ated acreage	Cropped acreage ³	Value of crops	Per acre Total ⁴ cropped
Salt River ..	219,691	179,350	171,832	\$3,661,769	\$21.31
Yuma	72,440	27,857	25,101	873,721	34.81
Orland	20,320	8,928	6,930	220,422	31.81
Grand Val- ley ⁴					
Uncompahgre Valley	65,000	41,463	40,553	1,044,915	25.76
Boise	150,000	76,705	69,818	1,526,873	21.87
Minidoka	120,000	83,562	77,008	1,725,515	22.41
Huntley	30,813	18,203	18,185	535,363	29.41
Milk River ..	22,200	4,192	3,887	51,249	13.18
Sun River ..	16,326	4,261	4,243	80,000	19.00
Lower Yel- lowstone	42,329	12,656	11,990	194,011	16.18
North Platte Truckee	129,714	70,007	68,130	1,263,617	18.55
Carson	65,000	40,295	38,495	592,523	15.39
Carlsbad	24,796	13,470	11,322	245,684	21.70
Hondo	3,330	1,294	1,287	17,778	13.81
Rio Grande ..	45,000	33,876	32,246	1,103,389	34.22
Umatilla	17,000	5,306	3,603	104,653	29.04
Klamath	38,000	27,254	27,254	377,488	13.85
Belle Fourche	78,591	44,067	43,063	462,050	10.72
Okanogan ..	10,099	7,800	4,814	254,425	52.60
Yakima:					
Sunnyside					
Unit	82,757	66,607	54,919	2,750,326	50.08
Tieton Unit	34,000	22,000	18,100	668,650	37.00
Shoshone ..	42,816	25,753	24,833	410,031	16.51
Totals	1,330,222	814,906	757,613	18,164,452	24.00

Additional irrigated areas not covered by crop reports:

	Irrigable acreage ²	Irrigated acreage
Boise	80,000	20,422
Uncompahgre Valley	4,500	4,500
North Platte	8,050	8,050
Strawberry Valley	50,000	8,900
Totals, reclamation projects	1,472,772	856,778

¹ Data are for calendar year (irrigation season) except on Salt River project, Ariz., data are for corresponding "agricultural year," October, 1914, to September, 1915.

² Area Reclamation Service was prepared to supply water.

³ Irrigated crops. Excludes small areas on few projects cropped by dry farming.

⁴ Operation begun in 1916.

⁵ Estimated. Crop reports covering 164 irrigated farms with 6,665 acres cropped, of which 2,422 acres were not irrigated. Total crop value for 6,665 acres \$115,129, or \$17.29 per acre.

⁶ \$22.60, excluding native pasture and other fields not in full production.

SALT RIVER PROJECT, ARIZONA

In Arizona the flow of Salt River has been utilized to irrigate nearly 200,000 acres of fertile land surrounding the State capital. Storage is provided about 80 miles above Phoenix by the famous Roosevelt Dam, a rubble masonry arch in the river canyon 280 feet in maximum height and 1,125 feet along the crest. This gives a reservoir capacity of 1,360,000 acre-feet, or over 400,000,000 gallons.

From Roosevelt the stored water is passed 60 miles down the river, where the diversion dam turns it into canal systems north and south of the stream. Over 800 miles of main canals and laterals have been excavated to distribute the water to the farmers. The opportunities for hydro-electric development created by the construction of the irrigation works have been utilized by building power plants at the base of Roosevelt Dam and at several points in the canal system where necessary drops afford good heads. Transmission lines have been built, delivering power to the several towns on the project, including the city of Phoenix, where it is used for lighting and manufacturing, and to near by mining industries, to which the surplus is sold. The receipts from power sales are credited to the project,

working a reduction in the total amount eventually to be repaid by the irrigators for the construction and operation of the project works.

Except for a few minor details the project is regarded as complete, and in 1915 about 190,000 acres were actually irrigated. Crops worth from four to five million dollars are annually harvested from the irrigated lands, the cultivation of which is practically continuous, permitting the sowing and harvesting of two different crops in the same field within the year. A wide variety of products are grown. Alfalfa occupies about one-half the producing acreage, yielding as many as five or six cuttings annually. In 1914 cotton growing had reached extensive proportions on the project, the crop from 11,500 acres bringing a return of \$715,000, but the drop in price attributed to the European war led to the temporary substitution of other crops. Of the grains, barley, wheat, and the sorghum are the largest producers. The warm climate lends itself to the growth of citrus as well as deciduous fruits and producing trees have been established on a considerable acreage, which is expected to increase materially in future years with a gradual development toward intensive agriculture.

YUMA PROJECT, ARIZONA AND CALIFORNIA

Above Yuma, Arizona, has been constructed the Laguna Dam, a low overflow structure of the Indian weir type, 4,780 feet between abutments and 260 feet up and down stream, with a maximum height of 40 feet. This turns the water into canals on both sides of the river for irrigation in Arizona and California. The canal system is now competent to water 70,000 acres. This will be extended to cover about 90,000 acres, and an additional 40,000 acres on the Yuma Mesa may be reached by pumping.

About 30,000 acres have been irrigated and the annual crop yield is approaching a million dollars. As at Salt River alfalfa is the principal crop and a large acreage is here permitted to ripen for seed, which in 1915 brought the farmers \$250,000 from 6,500 acres. Cotton has also proven very profitable on this project and with the aid of the Department of Agriculture varieties particularly suited to the locality have been imported or evolved. Other profitable crops include the cereals, sorghum corns, cane, vegetables, and truck. Fruit, especially of the citrus varieties, will undoubtedly increase in importance with development of the project, particularly on the mesa lands yet to be reached by the canal system.

ORLAND PROJECT, CALIFORNIA

Near Orland, California, has been completed a relatively small project, or what may be regarded as a separate unit of a large Sacramento Valley project. The East Park Dam on Little Stony Creek forms a reservoir storing the water of that stream and of Stony Creek, the latter brought to the reservoir through a feed canal. By means of two diversion dams near Orland the water is taken out of the stream channel into canal systems supplying an area of 20,000 acres favored by exceptional soil, location, transportation facilities, and climate.

In 1915, nearly 9,000 acres were watered, producing crops worth \$220,000. High priced products are grown on this project, including almonds, olives, oranges, grapes, and other citrus and deciduous fruits, nuts, and garden truck, as well as hay and forage crops.

GRAND VALLEY PROJECT, COLORADO

For this project a diversion dam has been built in Grand River about 8 miles northeast of Palisade. From this point the main canal follows what is locally known as the "high line," and piercing several hills by tunnels, proceeds in a general westerly direction, passing north of Grand Junction, and supplying about 43,000 acres of land above the older private canals of the valley. An additional 10,000 acres may be watered by pumping with power developed at drops in the canal. The land is particularly suitable for fruit growing and capable of producing crops of high value. Irrigation began on this project in 1916.

UNCOMPAHGRE VALLEY PROJECT, COLORADO

Here the Reclamation Service has built the Gunnison Tunnel to bring water from the Gunnison River to the valley of the Uncompahgre to supplement the meager flow of the latter stream. A number of canal systems heading in the Uncompahgre distribute the water to about 140,000 acres. Irrigation has been practiced here for many years and the principal private canals have been purchased or absorbed in the Government system to permit change or enlargement in a comprehensive development of the possibilities for irrigation in the

valley. Work is in progress on the canal system and this now reaches 65,000 acres, of which 40,000 are being irrigated. The crop production has steadily grown, exceeding a million dollars in value in 1915. Deciduous fruits are successful on the irrigated lands and good yields are obtained from alfalfa, potatoes, wheat, and oats.

BOISE PROJECT, IDAHO

One of the largest projects nearly completed is the Boise in Idaho. This is about equal in area to the Salt River and involves the storage and diversion of the waters of Boise River. The reservoir is formed by the Arrowrock Dam, the highest in the world.

About 12 miles below Arrowrock and 8 miles above Boise is the diversion dam of the project, turning the water into the canal system, which comprises 1,000 miles of canal and 12,000 structures.

Nearly 100,000 acres are now in crops and the annual production already exceeds a million dollars. Alfalfa, clover, cereals, and potatoes are the leading products.

MINIDOKA PROJECT, IDAHO

In Snake River Valley a project has been built, involving storage in Jackson Lake, Wyoming and a distribution system near Minidoka, Idaho. The Minidoka Dam diverts water to north and south side canals and furnishes a head of 46 feet, which is used to drive a 7,000-kilowatt power plant erected at the dam. The power is utilized to lift irrigation water to additional land not accessible by gravity flow and the excess energy is sold for the benefit of the project.

The power is produced at very low cost making it possible to sell the surplus energy for varied and novel uses, such as operating washing machines, flat-irons, and other utensils of the small home. Considerable is used for heating. One of the project towns has erected a school-house that is pointed out a building without a chimney or a gas pipe, electricity being used for heating, lighting, and operating all the devices necessary in a modern high school that includes physical and chemical laboratories.

The Minidoka Project is practically complete as now planned, and it is possible to water 120,000 acres, of which 85,000 are under irrigation, including 40,000 acres supplied by pumping. Forage crops, grain, potatoes, and sugar beets are the principal products.

HUNTLEY PROJECT, MONTANA

This is one of the few projects that requires no storage works, being located on the Yellowstone River at a point where the natural run-off from a large drainage area provides a sufficient water supply. The main canal and lateral system now cover 30,000 acres, which may be increased by small extensions.

The project is one of the most successful in operation and about 20,000 acres are now in crop, yielding products averaging in value about \$30 per acre. Sugar beets have become the most important crop. A company has erected and operates a beet-sugar factory, contracting with the farmers for a certain acreage to be planted with seed supplied by the company, which pays for the beets according to the sugar content. Over 5,000 acres are now utilized in this way, returning to the farmer about \$60 per acre. Alfalfa, grain, and garden truck are the other important products.

MILK RIVER PROJECT, MONTANA

Ever since the passage of the Reclamation Act the effort has been made to develop along broad lines the irrigation possibilities of the Milk River drainage. The situation is much complicated and delays have been caused by the fact that the river is an international stream, rising in the United States, entering Canada, and returning to this country. Thus between the storage sites and irrigable lands in the United States the river passes through lands that may be watered in Canada, leading to conflicting interests in the limited water supply. After years of negotiation a treaty with Great Britain was finally proclaimed in 1910 for the distribution of the water, but its interpretation in detail is still subject to adjustment, which is now in the hands of a joint commission representing the two Governments.

Meanwhile the Reclamation Service has built certain features of the American project, permitting irrigation of a portion of the lands. A canal 25 miles in length has been excavated to supplement the flow of Milk River from that of St. Mary River, thus diverting water through the divide separating the Hudson Bay drainage from that of the Mississippi and Gulf of Mexico. Work is now under way on a storage dam at Sherburne Lakes

and additional storage may be provided by a dam at the outlet of Lower St. Mary Lake. Three to four hundred miles below in Milk River Valley, distributing systems are planned, heading at three diversion dams near the towns of Chinook, Dodson, and Vandalia, with supplemental storage in a reservoir fed by one of the main canals. The Dodson and Vandalia dams have been built and distributaries for 40,000 acres. Grain and hay are the staple crops. The rainfall is sufficient to permit dry farming, but the yield is doubled or trebled with irrigation. Ultimately 200,000 acres or more may be watered.

SUN RIVER PROJECT, MONTANA

Near Fort Shaw the Reclamation Service has built and operated for several years a unit covering 16,000 acres, and work is now under way on larger features of a project that may eventually comprise 175,000 acres. A diversion dam has been built in the Sun River near Elizabeth and a distribution system for lands north of the river is under construction. A storage reservoir will be built on the north fork of the Sun.

The irrigable lands are within 50 miles of Great Falls, which supplies a market for the farm products. Grain, hay, and vegetables are the principal crops.

LOWER YELLOWSTONE PROJECT, MONTANA AND NORTH DAKOTA

About 18 miles below Glendive, Montana, the Yellowstone Dam diverts water into a canal that covers a strip of land west of the river in Montana and North Dakota. About 35,000 acres can now be supplied. The cold climate and short growing season limit the crops mainly to hay and grain, which give enhanced yields under irrigation, but the rainfall is sufficient to encourage dry farming and limits the practice of irrigation by the settlers.

NORTH PLATTE PROJECT, NEBRASKA AND WYOMING

This is another interstate project, utilizing the flow of the North Platte River to irrigate lands in Wyoming and Nebraska. Storage is provided near the headwaters by the Pathfinder Dam, a masonry arch 218 feet high and 432 feet along the crest. Near Whalen, Wyo., a diversion dam supplies the Interstate Canal, a notable irrigation conduit with a capacity of 1,400 cubic feet per second at its head. The canal is over 100 miles long and serves 130,000 acres in the two States. It takes several days for water entering the headgates to reach the end of the ditch, and several small reservoirs have been constructed along the canal to provide temporary storage and better regulation of the flow. Work is now underway on a large unit on the opposite side of the river. Here the Fort Laramie Canal will take out from the river at the Whalen Dam. It will exceed the Interstate Canal in length and furnish water to an area of 100,000 acres.

The area actually irrigated by the North Platte project is now increasing about 5,000 acres each year, and the annual crop value reached \$1,250,000 in 1915, when 70,000 acres were harvested. Alfalfa and grain are extensively grown and used to fatten stock for market. Hog raising has become an important and profitable industry; during the last six months of 1914, shipments to market averaged over 20 carloads, representing monthly receipts of \$30,000 from this industry alone.

TRUCKEE-CARSON PROJECT, NEVADA

On this project the Lahontan Dam has been recently built, being completed in 1915. The structure is a large earth embankment, with rock and gravel paving, 124 feet in maximum height and 1,400 feet long. The most interesting feature of the structure is the provision for passing excess flood water without injury to the dam directly or by erosion of the relatively soft material composing the river channel and canyon walls. For this purpose concrete spillway channels leading from each end of the dam are built in steps, dropping the water to a concrete stilling pool below the structure. The reservoir impounds the flow of Carson River and also receives the water brought from the Truckee through the Truckee Canal, built some years before. Prior to building the reservoir a hydroelectric plant was erected to utilize the drop from Truckee Canal to Carson River and the power thus developed was used in the construction of the dam. About 65,000 acres are now under ditch on this project. With additional storage and canal systems 200,000 acres may ultimately be reclaimed. The locality is extremely arid, with an annual rainfall of about 4 inches, insufficient for any crop growth. Under irrigation the soil gives good yields of alfalfa, grain, and vegetables.

CARLSBAD PROJECT, NEW MEXICO

Near Carlsbad, New Mexico, two dams have been built across the Pecos River, forming storage basins, and from the lower one of these a canal system has been excavated to supply 25,000 acres of land surrounding Carlsbad. About 14,000 acres are now irrigated, producing good yields of alfalfa, cotton, grain, truck, and fruit.

RIO GRANDE PROJECT, NEW MEXICO AND TEXAS

This is an interstate and international project, using the waters of the Rio Grande to irrigate land in New Mexico and Texas and supplying Mexico at the international boundary a quantity of water fixed by treaty.

The largest irrigation reservoir in the world is formed by the recently completed Elephant Butte Dam, spanning the river canyon near Engle, N. Mex. This structure is of rubble concrete, 300 feet from the bottom of the foundation to the crest, which extends 1,250 feet between abutments. This gives a reservoir capacity exceeding 2,500,000 acre-feet, or 800,000,000 gallons. One of the problems connected with storage on the Rio Grande is due to the great amount of silt carried by the stream, and this large reservoir capacity is expected to care for years of silt accumulations, which are further provided for by numerous openings through the dam for sluicing.

From the reservoir the water passes down the river channel to the irrigable lands, which are located in a series of narrow valleys along the stream in New Mexico and Texas. The development of each valley involves a diversion dam, main canals on either side of the river, and the necessary distributaries and structures. A number of private canals watering small areas will be embraced in the general development.

In the Mesilla Valley the Leasburg Dam and main canal have thus been built to connect with several community canals covering about 35,000 acres. An additional diversion is now under construction in this valley controlling 60,000 acres.

In El Paso Valley the Old Franklin Canal has been purchased and enlarged. This passes through the city of El Paso, where it has been concrete lined to give increased capacity. About 29,000 acres will eventually be watered.

Other tracts to be reached lie in Rincon and Palomas Valleys. In all, the project contemplates the irrigation of about 155,000 acres in the United States. The soils are very fertile and the market facilities unusually good. Alfalfa yields 3 to 6 tons per acre and the price averages above \$10 per ton, reaching at times as high as \$15 or \$20. Vegetables, truck, and fruit are very successful, and the 32,000 acres harvested in 1915 under the Government works yielded crops worth well over a million dollars.

UMATILLA PROJECT, OREGON

This project will supply 25,000 acres lying east of the Umatilla River by means of a canal system heading in Cold Springs Reservoir, which is filled by a feed canal from the Umatilla. Recently an extension to the project has been under construction west of the river, adding about 11,000 acres to the irrigable area.

On the older part of the project about 5,000 acres are now in crop. The conditions are favorable for the growth of fruit, which is gradually becoming the principal product. Good yields are also obtained from alfalfa, grain, vegetables, and truck crops.

KLAMATH PROJECT, OREGON AND CALIFORNIA

In the Klamath country of southern Oregon and northern California a plan has been partially carried out for utilizing the run-off of Klamath Lakes and Lost River to water areas that may eventually total 200,000 acres. Certain units of the project have been constructed, making water now available for 50,000 acres, of which 30,000 are being irrigated. In its entirety the project is an intricate one, involving a number of unusual features, of which perhaps the most novel is the de-watering and subsequent canalization of the Tule Lake bed. For this purpose its supply from Lost River is cut off by a dam at Clear Lake, the head of Lost River, forming a large shallow basin in which evaporation practically equals the inflow, and largely diverting into Klamath River the run-off that reaches Lost River below Clear Lake. By evaporation the bed of Tule Lake is gradually uncovering and irrigation of the exposed land has begun along the edge of the lake.

The Klamath area receives an average annual rainfall of 14 inches, permitting some crop production by dry farming, but the yields are doubled with irrigation. Forage crops predominate, but potatoes are successfully grown and small areas of fruit trees have yielded well.

BELLE FOURCHE PROJECT, SOUTH DAKOTA

Near the town of Belle Fourche, S. Dakota, the river of the same name has been utilized to irrigate lands east of the town. A diversion dam in the river turns the flow into a feed canal supplying a reservoir on Owl Creek, formed by a large earth dam from which canal systems distribute the water to the irrigable lands. The distributaries can now serve an area of 80,000 acres, about half of which is producing crops. Cereals predominate, including wheat, oats, corn, rye, and barley. Alfalfa is generally grown, and potatoes and garden truck occupy small tracts.

STRAWBERRY VALLEY PROJECT, UTAH

This contemplates the irrigation of 50,000 acres east of Utah Lake. Storage is provided by a dam on Strawberry River. By means of a tunnel nearly 4 miles long the water is carried through the rim of the Great Basin and delivered to Spanish Fork River. Here it is turned into the canal system by means of a diversion dam. The main canal serves also as a power conduit, supplying a hydro-electric plant, built early in the construction work, to furnish power for driving Strawberry tunnel. A permanent use of the power is planned for pumping water to tracts inaccessible by gravity flow and for drainage. Surplus power is sold to nearby towns. A number of old canals in the valley are supplied from the Government works. The principal products are alfalfa and other hays, cereals, sugar beets, and vegetables.

OKANOGAN PROJECT, WASHINGTON

In Okanogan County, Washington, the Reclamation Service has built works to serve 10,000 acres of land along Okanogan River within 50 miles of the Canadian border. Storage is provided in Salmon Lake and by an earthen dam on Salmon River near the town of Conconully. The water is turned into a canal system about 12 miles below the Conconully Dam by means of a weir across Salmon River. The gravity system was completed in 1910 and the water has been used by the farmers each year on an increased acreage. The area irrigated has now reached about 8,000 acres. Small hydro-electric plants have been erected at drops formerly provided in the project canals and the power thus developed is used to operate a pumping plant near Omak. This lifts water from the Okanogan River to supplement the supply from the Salmon. It is not necessary to run the pumps every year, but they provide capacity to water about 1,000 acres during seasons of lean run-off in Salmon River.

The project lands are excellently suited to the production of fruit, particularly apples. Peaches, apricots, pears, prunes, and various small fruits are also grown. Hay, forage, and vegetables are produced on smaller areas.

YAKIMA PROJECT, WASHINGTON

Considerable work has been completed toward the execution of a comprehensive development of the Yakima Valley, including storage reservoirs at the headwaters of the Yakima River and its tributaries, and distributing systems at various points lower down in the valley.

The principal distribution systems are the Sunnyside and Tieton units. Nearly 100,000 acres are now under irrigation on these two units, growing crops each year worth three to three and a half million dollars. The section has become a well-known apple producer and through cooperative organizations has made great progress in developing a uniform product and in advertising and marketing it. In addition to apples and other fruits excellent yields are obtained from alfalfa, cereals, and vegetables. Indian corn is successful here; in 1914, 7,500 acres of this crop yielded an average of about 50 bushels per acre.

SHOSHONE PROJECT, WYOMING

In Wyoming the Shoshone River is being utilized to develop a project of 150,000 acres. In the canyon above Cody has been built the Shoshone Dam, a rubble concrete arch 328 feet high and 200 feet along the crest. This was the highest dam in the world when constructed, but has since been exceeded by the Arrowrock Dam, also built by the Reclamation Service. Eight miles below Cody a diversion dam turns the stored water into Corbett Tunnel, which delivers to the main canal. The distribution system now reaches 41,000 acres and about 30,000 acres are now being irrigated. Agriculturally the project is essentially a hay and grain producer, with small tracts devoted to vegetables and garden truck. Alfalfa is the principal crop, exceeding all others together in planted area and value of product.

SPORTING RECORDS

AVIATION

Less than a decade ago flying in a heavier than air machine was only a dream. The war has now proved its practicability. It was on December 17, 1903, that Orville Wright made the first flight, going 852 feet and staying in the air 59 seconds.

Another step forward was made in 1905 when a way was discovered by which the machine could turn corners by means of warping planes. People began to look at the Wright brothers in a different light then.

In the fall of that same year France, which has always been close to the lead in aviation, sent a representative to this country to negotiate with the Wrights. They were willing to dicker, but not willing to give any demonstrations. Although hundreds of thousands of dollars were involved, the best the agent could get for an option was a photograph which showed little or nothing. The Wrights were firm: money first and then demonstration. The transactions fell through and the brothers continued their work alone. Charles R. Flint of New York then stepped forward. He was a promoter and he talked business. The Wrights had therefore rather tried to keep their machine as a military asset. Mr. Flint proposed commerce. He induced the brothers to patent their inventions, and in 1908 the world began to know something about it all. A new flier was sent down to Manteo, N. C., in the summer of that year and the press took pictures. A propeller, the vertical planes, the steering rudder, came out on the negatives. That same year flights around Dayton were seen by outsiders, and then came the Government tests in this country by Orville, while Wilbur went abroad to convince France. Wilbur electrified the world at Le Mans, France, in August, and in September Orville began the flights at Fort Myer, which ended with the death of Lieut. Selfridge and his own serious injury.

Every month since then has seen progress and certainty. A man can travel as fast in an aeroplane now as he can by any other means of mechanical propulsion. Continents have been crossed and great heights have been reached. Nothing emphasizes the practicability of the aeroplane more than the use to which they are being put in the European War. Every important country has its aviation department. The hydroplane, which is now receiving a great deal of attention by the experts, is a form of aeroplane equipped so that it may alight on water. The progress of aviation is seen in the following records:

Distance and Duration Records

Date	Aviator	Place	Time	Distance
1903, Dec. 17	O. Wright	Kitty Hawk	H. M. S.	
1904, Dec. 17	O. Wright	Kitty Hawk	0:00:59	852 ft.
1905, Oct. 5	O. Wright	Dayton	0:38:03	24.01 mi.
1906, Nov. 13	S. Dumont	Paris	0:00:21	721.6 ft.
1907, Oct. 26	H. Farman	Issy	0:00:25	2,528.8 ft.
1908, Dec. 31	W. Wright	Anvers	2:20:23	77.31 mi.
1909, Nov. 3	Farman	Mourmelon	4:06:25	143.84 mi.
1910, Dec. 30	Tabuteau	Buc	7:45:00	362.66 mi.
1911, Dec. 24	A. Gobe	Pau	.....	461.02 mi.
1912, Sept. 11	M. Fourny	France	13:01:12	1,000 km.
1913, June 17	M. Prevost	France	0:33:30 $\frac{1}{2}$	100 km.
1914, June 28	Landmann	Germany	21:49	1,000 mi.
1914, July 11	R. Boehm	Johannisthal	24:12:00	.....

Altitude Records

Date	Aviator	Place	Machine	Height ft.
1908, Dec. 18	W. Wright	Anvers	Wright	350
1909, Dec. 1	Latham	Mourmelon	Antoinette	1,700
1910, Dec. 26	Hoxey	Los Angeles	Wright	11,472
1911, Sept. 4	L. Garros	Parame	Bleriot	12,828
1912, Sept. 17	Legagneux	.....	.....	17,878
1913, Dec. 27	Legagneux	France	.....	20,295
1914, July 14	H. Oelerich	Leispic	.....	24,606
1916, April 26	Hawker	England	.....	24,408

The greatest aeroplane feat in this country during 1915 was probably the flying upside down of Chas. Niles of Rochester with a 180 pound passenger. This was accomplished on June 16th, 1915, with a specially constructed Bleriot monoplane.

On Sept. 29, 1913, Maurice Prevost won for France the International Aeroplane Cup, open to all nations, but with only France and Belgium competing, by flying the 124.28 miles (200 kilometers) in the record time of 59 minutes 43 $\frac{1}{2}$ seconds, or over two miles a minute. The meet was held at Rheims.

Prevost vanquished his two formidable French opponents, Emile Vedrines, and Eugene Gilbert, who took 60 minutes 51 $\frac{1}{2}$ seconds and 62 minutes 55 $\frac{1}{2}$ seconds, respectively, and easily outflaw the single Belgian, Albert Crombez, whose record time was 69 minutes 52 seconds.

Cross-Country Flights

During the past three years cross-country and over-water flights have become more popular. They give a better test of the practicability of a machine.

The greatest flight was that of Garros across the Mediterranean, from Saint Raphael, France, to Tunis, Africa—a distance of 558 miles in 7 hours and 53 minutes at the rate of 70 miles an hour.

A new cross-country record was established, when on April 1, 1916, carrying passengers, Stephen McGordon flew from Newport News to Washington and return, about 300 miles in 4 $\frac{1}{2}$ hours, averaging 66 $\frac{1}{2}$ miles an hour.

This beats all world's records, for an aeroplane carrying six passengers.

The aeroplane, self-balancing and of the biplane type, has reached 5,000 feet altitude with nine passengers; the weight carried was just under one ton.

WORLD'S BEST SPEED RECORDS

BASED ON MILES PER HOUR (M.P.H.)

Motor Car.—140.29 m.p.h. Mile in 25.40 by Burman, at Daytona, Fla., 1911.

Electric Trolley.—128.55 m.p.h. Average speed made by electric trolley in German Government test, 1902.

Steam Locomotive.—139.35 m.p.h. New York Central 7.29 miles at rate of 139.35 miles per hour, 1903.

Pigeon.—85.6 m.p.h. Average speed. Bird owned by W. J. Lautz, Buffalo. In 100-mile flight, 1900.

Motor Cycle.—91.8 m.p.h. Two miles by Arthur Chapple, New York July 27, 1912, 1:18 2-5.

Bicycle.—63 m.p.h. Paul Guignard, behind motor pace. Munich, Germany, 63 miles 189.8 yards per hour. 1909.

Aeroplane.—126.6 m.p.h. M. Prevost, in France, Sept. 29, 1913.

Motor Boat.—55 m.p.h. Made by Crusader III over measured mile course at Ventnor Yacht Club, Atlantic City, May 10, 1912.

Running Horse.—37.6 m.p.h. Straightaway mile in 1:35 $\frac{1}{2}$ by Salvator, at Monmouth Park, N. Y., 1890.

Pacing Horse.—32.43 m.p.h. Mile time trial with wind shield, in 1:55. Dan Patch, St. Paul, 1906.

Trotting Horse.—30.37 m.p.h. Mile time trial in 1:58 $\frac{1}{2}$. Lou Dillon, Memphis, Tenn., 1905.

Steamship.—30.53 m.p.h. Average made in fastest day's run. Mauretania, covering 673 knots. 1909.

Ice Skater.—28.12 m.p.h. Mile in 2:8. Flying start. Norval Baptie, Minneapolis, 1903.

Roller Skating.—24.42 m.p.h. Mile in 2:32. Clarence Hamilton, Chicago, 1909.

Running Man.—14.24 m.p.h. Mile in 4:12 3-5 Norman S. Tabor, 1915.

Rowing Man.—12.77 m.p.h. Average made by Cambridge crew, 1900. 4 mile race. 18:47.

Swimmer.—2.65 m.p.h. Mile in 23:16 4-5. B. Kiernan, Australia, 1905.

NATIONAL TENNIS CHAMPIONS—Since 1900

1900—M. D. Whitman.	1909—W. A. Larned.
1901—W. A. Larned.	1910—W. A. Larned.
1902—W. A. Larned.	1911—W. A. Larned.
1903—H. L. Doherty.	1912—M. E. McLoughlin.
1904—H. Ward.	1913—M. E. McLoughlin.
1905—B. C. Wright.	1914—R. N. Williams, 2d.
1906—W. J. Clothier.	1915—W. M. Johnston.
1907—W. A. Larned.	1916—R. N. Williams, 2d.
1908—W. A. Larned.	

HORSE RACING RECORDS

Trotting		1 Mile Records	
Fastest trotter, any age or sex—Uhlán, bl. g. (9) ('12) ..	1:58	Fastest pacer, any age or sex—Dan Patch b. h. ('03) ..	1:55 3/4
Yearling colt—Airdale ('13) ..	2:15 3/4	Fastest pacing race record—Directum I, ch. h. ('15) ..	1:56 3/4
Yearling filly—Miss Stokes ('09) ..	2:19 1/2	Stallion—Dan Patch ('03) ..	1:55 1/4
Two-year-old colt—Peter Volo ('13) ..	2:04 1/2	Gelding—Frank Bogash Jr. ('14) ..	1:59 1/4
Two-year-old filly—Real Lady ('16) ..	2:07 1/2	Mare—Daniel ('03) ..	2:00 1/4
Two-year-old gelding—Henry Todd ('14) ..	2:11 3/4	Yearling colt—Frank Perry ('11) ..	2:15
Three-year-old colt—Peter Volo ('14) ..	2:03 1/2	Yearling filly—Rose Magee ('14) ..	2:19 1/2
Three-year-old filly—Volga ('16) ..	2:05 1/2	Yearling gelding—Kollo ('91) ..	2:28 1/2
Three-year-old gelding—Peter Thompson ('11) ..	2:07 1/2	Two-year-old colt—Directly ('94) ..	2:07 3/4
Four-year-old colt—Peter Volo ('15) ..	2:02	Two-year-old filly—Fleeta Dillon ('09) ..	2:08 3/4
Four-year-old mare—Joan ('10) ..	2:04 3/4	Three-year-old colt—William ('13) ..	2:05
Four-year-old gelding—Uhlán ('08) ..	2:07 3/4	Three-year-old filly—Anna Bradford ('14) ..	2:00 3/4
Five-year-old stallion—Lee Arworthy ('16) ..	2:00	Three-year-old gelding—Hemet ('12) ..	2:08 3/4
Five-year-old mare—Lou Dillon ('03) ..	1:58 1/4	Four-year-old colt—William ('14) ..	2:00
Five-year-old gelding—Uhlán ('09) ..	2:02 1/2	Four-year-old mare—Miss Harris M. ('15) ..	2:01 1/4
Fastest first heat—Hamburg Belle ('09) ..	2:01 3/4	Four-year-old gelding—R. H. Brett ('14) ..	2:03 1/4
Fastest second heat—Hamburg Belle ('09) ..	2:01 3/4	Five-year-old stallion—Braden Direct ('13) ..	2:01 1/4
Fastest third heat—The Harvester ('10) ..	2:02	Five-year-old mare—Leata J. ('13) ..	2:03
Fastest fourth heat—Soprano ('11) ..	2:05 1/4	Five-year-old gelding—Coney ('00) ..	2:02 3/4

Pacing

Fastest pacer, any age or sex—Dan Patch b. h. ('03) ..	1:55 3/4
Fastest pacing race record—Directum I, ch. h. ('15) ..	1:56 3/4
Stallion—Dan Patch ('03) ..	1:55 1/4
Gelding—Frank Bogash Jr. ('14) ..	1:59 1/4
Mare—Daniel ('03) ..	2:00 1/4
Yearling colt—Frank Perry ('11) ..	2:15
Yearling filly—Rose Magee ('14) ..	2:19 1/2
Yearling gelding—Kollo ('91) ..	2:28 1/2
Two-year-old colt—Directly ('94) ..	2:07 3/4
Two-year-old filly—Fleeta Dillon ('09) ..	2:08 3/4
Three-year-old colt—William ('13) ..	2:05
Three-year-old filly—Anna Bradford ('14) ..	2:00 3/4
Three-year-old gelding—Hemet ('12) ..	2:08 3/4
Four-year-old colt—William ('14) ..	2:00
Four-year-old mare—Miss Harris M. ('15) ..	2:01 1/4
Four-year-old gelding—R. H. Brett ('14) ..	2:03 1/4
Five-year-old stallion—Braden Direct ('13) ..	2:01 1/4
Five-year-old mare—Leata J. ('13) ..	2:03
Five-year-old gelding—Coney ('00) ..	2:02 3/4
Fastest first heat—Minor Heir ('10) ..	1:59
Fastest second heat—Directum I. ('14) ..	1:58
Fastest third heat—Directum I. ('14) ..	2:00
Fastest fourth heat—Evelyn W. ('11): Directum I. ('13) ..	2:02 1/4

24 Hour Track Automobile Races

Lozier, Patschke & Mulford, 1,196 miles. Brighton Beach, 1909	
Stearns, Poole & Patschke, 1,253 " " Brighton Beach, 1910	
Fiat, Verbeck & Hirsh, 1,491 " " Los Angeles, 1911	

AUTOMOBILE SPEED RECORDS

Miles	Year	Time	Driver	Car
1	1911	25.40	Burman	Blitzen Benz
2	1911	51.28	Burman	Blitzen Benz
5	1906	2:34.00	Hemery	Darracq
10	1909	5:14.40	Brace-Brown	Benz
12	1913	9:20.80	Disbrow	Simplex Zip
15	1906	10:00.00	Lancia	Fiat
20	1911	13:11.92	Burman	Buick Bug
50	1911	35:52.31	Burman	Buick Bug
100	1916	56:37.65	Aitken	Peugeot
150	1911	1:55:18.00	Disbrow	Special
300	1911	2:34:12.00	Disbrow	Special
350	1916	2:23:01.00	Aitken	Peugeot
300	1911	3:53:33.50	Disbrow	Special
350	1915	3:24:42.00	Anderson	Stutz

All speedway records were broken on October 1st, 1916, when Jack Aitken won the Astor Cup Race at the New Sheepshead Bay 2 mile course. It was a 250 mile race, the winner making the average time of 104.8 miles an hour.

BOXING CHAMPIONS

Class	Weight (lbs.)	Name	Year
Heavyweight	over 158	Jess Willard	1915
Middleweight	158	No legitimate claimant	
Welterweight	145	Jack Britton	1916
Lightweight	133	Freddie Welsh	1914
Featherweight	122	John Kilbane	1914
Bantamweight	116	John Ertle†	1914

*Claims title by winning elimination contest.

†Claims title, being fouled by Champion Kid Williams on Sept. 10, 1915.

THE OLYMPIC GAMES

The Olympic games have been held every four years since they were revived in Athens in 1896. The fifth Olympiad was held in Stockholm during the summer of 1912, the United States winning another glorious victory. The American athletes won 16 firsts, 12 seconds and 13 thirds, a total of 85 points. Finland second with 29 points, Sweden third, 27 points and England fourth, 15 points. Our men behind the gun, rifle and revolver also led the world and our cyclists and swimmers scored heavily. The next Olympiad scheduled to be held in Berlin in 1916 was not held on account of the present European War.

Record of Last Three Olympiads

Track Events	St. Louis, Mo., 1904	London, 1908	Stockholm, 1912
	M. S.	M. S.	M. S.
100 metres.....	A. Hahn, U. S. :11	R. E. Walker, S. A. :10 4-5	Ralph Craig, U. S. :10 4-5
200 metres.....	A. Hahn, U. S. :21 3-5	R. Kerr, Canada, :22 3-5	Ralph Craig, U. S. :21 7-10
400 metres.....	H. Hillman, U. S. :49 1-5	W. Halswell, U. K. :50	C. R. Reidpath, U. S. :48 1-5
800 metres.....	J. Lightbody, U. S. 1:56	M. Sheppard, U. S. 1:52 4-5	J. E. Meredith, U. S. 1:51 9-10
1,500 metres.....	J. Lightbody, U. S. 4:05 2-5	M. Sheppard, U. S. 4:03 2-5	A. N. S. Jackson, Eng. 3:56 4-5
5,000 metres.....			H. Kolehmainen, Fin. 14:36 3-5
10,000 metre walk.....			G. Goulding, Can. 46:28 2-5
10,000 metres.....		E. Voigt, U. K. (5 mi.) .. 25:11 1-5	H. Kolehmainen, Fin. 31:20
110 metre high hurdle.....	F. Schule, U. S. :16	F. Smithson, U. S. :15	F. W. Kelly, U. S. :15 1-10
400 metre high hurdle.....	H. Hillman, U. S. :53	C. J. Bacon, U. S. :55	
Marathon Race.....	T. J. Hicks, U. S. 3:28:53	J. Hayes, U. S. 2:55:18 2-5	K. K. McArthur, So. A. 2:36:00
Field Events	Ft. Ins.	Ft. Ins.	Ft. Ins.
Standing broad jump.....	R. C. Ewry, U. S. 11 4-7 8	R. C. Ewry, U. S. 10 11 1-4	Tsilidiras, Greece, 11 7-10
Standing high jump.....	R. C. Ewry, U. S. 4 11	R. C. Ewry, U. S. 5 2	Platt Adams, U. S. 5 4
Running broad jump.....	M. Prinstein, U. S. 24 1	F. C. Irons, U. S. 24 6 1-2	A. L. Gutterston, U. S. 24 11
Running high jump.....	S. S. Jones, U. S. 5 11	H. F. Porter, U. S. 6 3	G. W. Richard, U. S. 6 3 3-4
Hop-step-jump.....	M. Prinstein, U. S. 47	T. J. Ahearne, U. K. 48 11 1-4	G. Lindblom, Sweden, 48 5 1-10
Pole vault.....	C. Dvorak, U. S. 11 6	E. T. Cooke, U. S. 12 2	H. S. Babcock, U. S. 12 11 1-2
Hammer throw, 16-lb.....	J. Flanagan, U. S. 68 1	J. Flanagan, U. S. 170 4 1-4	M. J. McGrath, U. S. 180 5
Shotput, 16-lb.....	R. Rose, U. S. 48 7	R. Rose, U. S. 46 7 1-2	P. McDonald, U. S. 50 32
Shotput, 16-lb., both hands.....			R. Rose, U. S. 90 5 1-2
Discus, best hand.....	M. Sheridan, U. S. 128 10 1-2	M. Sheridan, U. S. 134 2	A. R. Taipale, Fin. 148 1 1-2
Discus, both hands.....			A. R. Taipale, Fin. 271 9 3-4
Javelin, throw.....		E. Lemming, Sweden, 179 10 1-2	E. Lemming, Sweden 198 4
Javelin, both hands.....			J. J. Saaristo, Fin. 358 11

OTHER RECORDS IN 1912.—400 metre relay race won by England, with Sweden second. 3,000 metre team race won by United States, Sweden second, and Finland third. 1,600 metre relay race won by United States, France second, England third. 3,000 metre cross-country won by Sweden, Finland second, England third. Pentathlon and Decathlon both won by James Thorpe, United States.

WORLD'S SPORTING RECORDS

50 yards—A. B. Postle, Kalgoorlie, Australia	:05 1-10
75 yards—L. H. Cary, Princeton, 1891.....	:07 3-5
100 yards—Howard P. Drew, Cal. Mar. 28, 1914.....	:09 3-5
100 metres—F. L. Ramsdell, Pittsburgh, Pa.....	:10 1-5
150 yards—R. E. Walker.....	:14 3-5
150 yards—Swimming—Harry Hebner, 1914.....	1:31 1-5
220 yards—R. C. Craig, Mich., 1911.....	:21 1-5
300 yards—B. J. Wefers, 1896.....	:30 3-5
440 yards—M. W. Long, N. Y. A. C., 1900.....	:47
440 yards (Indoors)—T. J. Halpin, N. Y., 1913.....	:49 3-5
400 metres—J. E. Meredith, Pa., 1912.....	:48
600 yards—M. W. Sheppard, N. Y., 1910.....	1:10 4-5
800 metres—J. E. Meredith, Pa., 1912.....	1:51 9-10
880 yards—J. E. Meredith, Pa., 1912.....	1:52 1-2
880 yards (Indoors)—E. B. Parson, Buffalo.....	1:54 3-5
1,000 yards—M. W. Sheppard, N. Y., 1910.....	2:12 2-5
1 mile—N. S. Tabor, Brown, Univ., 1915.....	4:12 3-5
1 mile walk—G. H. Goulding, Canada, 1910.....	6:25 4-5
1,500 metres—A. R. Kiviat, Staten Island, 1912.....	3:55 4-5
2 miles—Alfred Shrub, England, 1904.....	9:09 3-5
2½ miles—Hannes Kolehmainen, N. Y., '13.....	11:59 2-5
2 miles (Indoors)—William Kramer, Long Island, 1913.....	9:19 1-5
2 mile walk—C. E. Larner, England, 1904.....	13:48 3-5
5,000 metres—H. Kolehmainen, Finland, 1912.....	14:36 3-5
3 miles—Alfred Shrub, England, 1903.....	14:17 3-5
3 mile walk—C. E. Larner, England, 1905.....	20:25 4-5
4 miles—Alfred Shrub, England, 1904.....	19:23 3-5
5 miles—Alfred Shrub, England, 1904.....	24:33 2-5
5 miles (Indoors)—Hannes Kolehmainen, N. Y., 1913.....	24:29 1-5
5 mile walk—C. E. Larner, England, 1905.....	36:00 1-5
10 miles—Alfred Shrub, England, 1904.....	50:40 3-5
10 miles (Indoors)—L. Tewinima, Carlisle Indian School.....	54:21 1-5
10 mile walk—H. V. L. Ross, England.....	1:15:35
15 miles—F. Appleby, England, 1902.....	1:20:04 2-5
20 miles—Geo. Crossland, England, 1894.....	1:51:54
25 miles—H. Green, Engd, 1913.....	2:29:29 2-5
50 miles—P. Golden, N. Y., 1883.....	7:29:47
95 miles—S. Hatch, Chicago, 1916.....	14:50:30
100 miles—J. Saunders, N. Y., 1882.....	17:36:14
120 miles—J. Saunders, N. Y., 1882.....	22:47:23
1 hour—J. Bouin, France, 1913.....	11 m. 1,442 yds.
120 yards hurdle—Frank French, Maine Univ. 1916.....	:14
220 yards hurdle—A. C. Kraenzlein, 1898.....	:23 3-5
440 yards hurdle—H. L. Hillman, Jr., N. Y., 1904.....	:54 3-5
100 yard swim—Duke Kahanamoku, July, 1915.....	0:54 2-5
200 yard swim—H. J. Hebner.....	2:07 2-5
500 metre swim—Herbert E. Vollmer, N. Y., July, 1916.....	6:51 3-5
12-lb. shot—R. Rose, San Francisco, 1908.....	57 ft. 3 in.
16-lb. shot—Ralph Rose, San Francisco, 1909.....	51 ft.
12-lb. hammer—Pat. Ryan, Irish Am. A. C. 1914.....	213 ft. 9 1-8 in.
16-lb. hammer—Patrick Ryan, N. Y., 1913.....	189 ft. 6 1-2 in.
56-lb. weight—M. J. McGrath, 1911.....	40 ft. 6 3-8 in.
Running long jump—Patrick O'Connor, Ireland.....	24 ft. 11 3-4 in.
Standing broad jump—Ray C. Ewry, St. Louis, 1904.....	11 ft. 4 7-8 in.
Running high jump—Geo. Horine, Cal., 1912.....	6 ft. 8 1-4 in.
Standing high jump—L. Goehring, N. Y., 1913.....	5 ft. 5 3-4 in.
Pole vault—Marc S. Wright, Dartmouth, 1912.....	13 ft. 2 1-4 in.
Running hop, step and jump—D. F. Ahearne, N. Y., 1911.....	50 ft. 11 in.
Throwing the discus (both hands)—A. R. Taipale, Finland, 1912.....	271 ft. 9 2-4 in.

Longest Baseball Game

The longest baseball game on record was played May 31, 1901 in the Three I League when Decatur beat Bloomington 2 to 9 in twenty six innings. The next longest was the 4 to 1 twenty-four inning game won by the Athletics from Boston Sept. 1, 1906.

BASEBALL CHAMPIONS

National League Champions

NOTE:—Chicago team was first Champion in 1876			
Year	Winner	W.	L.
1887	Detroit.....	79	45
1888	New York.....	84	47
1889	New York.....	83	43
1890	Brooklyn.....	86	43
1891	Boston.....	87	51
1892	Boston.....	102	48
1893	Boston.....	86	43
1894	Baltimore.....	89	39
1895	Baltimore.....	87	43
1896	Baltimore.....	90	39
1897	Boston.....	93	39
1898	Boston.....	102	47
1899	Brooklyn.....	101	47
1900	Brooklyn.....	82	54
1901	Pittsburgh.....	90	49
1902	Pittsburgh.....	103	36
1903	Pittsburgh.....	91	49
1904	New York.....	108	47
1905	New York.....	105	48
1906	Chicago.....	116	36
1907	Chicago.....	107	45
1908	Chicago.....	99	55
1909	Pittsburgh.....	110	42
1910	Chicago.....	104	50
1911	New York.....	99	54
1912	New York.....	103	48
1913	New York.....	101	51
1914	Boston.....	94	59
1915	Philadelphia.....	90	62
1916	Brooklyn.....	94	60

American League Champions

Year	Winner	W.	L.	%
1900	Chicago.....	82	53	.607
1901	Chicago.....	83	53	.610
1902	Philadelphia.....	83	53	.610
1903	Boston.....	91	47	.659
1904	Boston.....	95	59	.617
1905	Philadelphia.....	92	56	.621
1906	Chicago.....	93	58	.616
1907	Detroit.....	92	58	.613
1908	Detroit.....	90	63	.588
1909	Detroit.....	98	54	.645
1910	Philadelphia.....	102	48	.680
1911	Philadelphia.....	101	50	.669
1912	Boston.....	105	47	.691
1913	Philadelphia.....	96	57	.627
1914	Philadelphia.....	99	53	.651
1915	Boston.....	101	50	.659
1916	Boston.....	91	63	.591

World's Championship Series

Year	Teams	Games Won*
1884	Providence (N) vs. Metropolitans (A.A.).....	3 2
1885	St. Louis (N) vs. Chicago (A.A.).....	3 2
1886	St. Louis (A.A.) vs. Chicago (N).....	4 2
1887	Detroit (N) vs. St. Louis (A.A.).....	11 4
1888	New York (N) vs. St. Louis (A.A.).....	6 4
1889	New York (N) vs. Brooklyn (A.A.).....	6 3
1890	Brooklyn (N) vs. Louisville (A.A.).....	3 3
1892	Boston (N) vs. Cleveland (N).....	5 0
1894	New York (N) vs. Baltimore (N).....	4 0
1895	Cleveland (N) vs. Baltimore (N).....	4 1
1896	Baltimore (N) vs. Cleveland (N).....	4 0
1897	Baltimore (N) vs. Boston (N).....	4 1
1900	Boston (A) vs. Pittsburgh (N).....	5 3
1905	New York (N) vs. Philadelphia (A).....	4 1
1906	Chicago (A) vs. Chicago (N).....	4 2
1907	Chicago (N) vs. Detroit (A).....	4 0
1908	Chicago (N) vs. Detroit (A).....	4 1
1909	Pittsburgh (N) vs. Detroit (A).....	4 3
1910	Philadelphia (A) vs. Chicago (N).....	4 1
1911	Philadelphia (A) vs. New York (N).....	4 2
1912	Boston (A) vs. New York (N).....	4 3
1913	Philadelphia (A) vs. New York (N).....	4 1
1914	Boston (N) vs. Philadelphia (A).....	4 0
1915	Boston (A) vs. Philadelphia (N).....	4 1
1916	Boston (A) vs. Brooklyn (N).....	4 1

Score in first row refers to first mentioned team. A—American, N—National.

THE PANAMA CANAL

On August 15, 1914, the Panama Canal was opened to commerce.

TYPE OF CANAL

The Canal has a normal summit elevation of 85 feet above the sea, reached by a flight of three locks located at Gatun, on the Atlantic side, and by one lock at Pedro Miguel and a flight of two at Miraflores, on the Pacific side; all these locks are in duplicate, that is, having two chambers, side by side. Each lock has a usable length of 1,000 ft. and a width of 110 ft. The summit level, extending from Gatun to Pedro Miguel, a distance of about 31.5 miles, may be varied between 79 and 87 feet above sea level by means of the spillway in the dam at Gatun. The Gatun Lake, which has an area of 164.23 square miles, is maintained by earth dams at Gatun and Pedro Miguel. The Chagres River and other streams, empty into this lake. A small lake, about two square miles in area, with a surface elevation of 55 feet, lies between Pedro Miguel and Miraflores, the valley of the Rio Grande being closed by an earth dam on the west side and a concrete dam with spillway on the east side at Miraflores.

The approaches from deep water to the Gatun Locks on the Atlantic side, and from deep water to the locks at Miraflores, on the Pacific side, are sea level channels, about 7 and 8 miles in length, respectively, and each 500 ft. wide.

LENGTH, WIDTH AND DEPTH OF CANAL

The Canal is 50.3 miles in length from deep water in the Caribbean Sea to deep water in the Pacific Ocean. The distance from deep water to the shore line in Limon Bay is about 4½ miles, and from the Pacific shore line to deep water is about 4 miles; hence the length of the Canal from shore to shore is approximately 41½ miles.

The channel from Mile 0 in the Caribbean to Mile 6.90 at the north end of Gatun Locks is 500 feet wide; from the south end of Gatun Locks to Mile 23.70 not less than 1,000 feet wide; from Mile 23.70 to Mile 26.90, 800 feet wide; from Mile 26.90 to Mile 27.45, 700 feet wide; from Mile 27.45 to Mile 31.50, 500 feet wide; from Mile 31.50 to Pedro Miguel lock (Mile 39.68), 300 feet wide, and from Pedro Miguel lock to Miraflores locks, and from Miraflores locks to deep water in Panama Bay, 500 feet wide.

The average width of the channel in this project is 649 feet, and the minimum width 300 feet. The minimum depth of the Canal is 41 feet.

GATUN DAM

The Gatun dam along the crest is about 8,000 feet long, including the spillway, or about 1½ miles, and 2,100 feet wide at its greatest width.

The crest of the dam is at an elevation of 105 feet above sea level, or 20 feet above the normal level of Gatun Lake, and 100 feet wide. The width of the dam at the normal water level of the lake, i. e., 85 feet above sea level, is about 388 feet.

The central part of the dam was filled by hydraulic process, protected by rock toes on both sides of the dam. The upper slope on the lake side of the dam is further protected by 10 ft. thickness of rock. The other parts of the dam were filled with available material from canal excavation.

In entering the Canal from the Atlantic side, a ship proceeds from deep water in Limon Bay to Gatun Locks, a distance of 6.9 miles, through a channel 500 feet wide; passing into the locks 0.78 of a mile in length, the ship is carried up to an elevation of 85 feet above sea level in 3 lifts to the level of the water in Gatun Lake; thence for a distance of 16 miles the channel is 1,000 feet or more in width to Mile 23.7; from this point to Mile 26.9 the Channel is 800 feet wide; from this point to Mile 27.45 the channel is 700 feet wide; from this point to Mile 31.5 near Bas Obispo, the channel is 500 feet wide; from Bas Obispo to Pedro Miguel lock, through the Culebra Cut, to Mile 39.68 the channel is 300 feet wide. Going through Pedro Miguel lock, 0.37 of a mile in length, the vessel is lowered to the level of Miraflores Lake, 55 feet above mean tide, through which there is a channel 500 feet wide to Miraflores Locks at Mile 41.71, thence through the two Miraflores Locks, 0.58 of a mile in length, the vessel is lowered to tide level and proceeds through a channel 500 feet wide to deep water in the Pacific at Mile 50.3. The time required for the passage of a ship of medium size

through the entire length of the Canal is estimated at from 9¼ to 10 hours, and for larger vessels from 10¼ to 11 hours.

TOLLS

By proclamation of the President, dated November 13, 1912, the following rates of toll to be paid by vessels using the Panama Canal were prescribed:

On merchant vessels carrying passengers or cargo, \$1.20 per net vessel ton—each one hundred cubic feet—of actual earning capacity;

On vessels in ballast without passengers or cargo, 40% less than the rate of tolls for vessels with passengers or cargo;

Upon naval vessels, other than transports, colliers, hospital ships, and supply ships, 50 cents per displacement ton;

Upon Army and Navy transports, colliers, hospital and supply ships, \$1.20 per net ton, the vessels to be measured by the same rules as are employed in determining net tonnage of merchant vessels.

Tolls are levied on the basis of the cargo and passenger carrying capacity of each vessel. The determination of capacity is embraced in a set of rules of measurement of vessels for The Panama Canal, according to which the net tonnage of a vessel is the units of interior space of 100 cubic feet, or 2.83 cubic meters, which may be devoted to carrying cargo or passengers.

The interior cargo-carrying capacity or net canal tonnage is the primary basis on which tolls are levied, but there is additional charge for open space on deck occupied by cargo or deckload.

A vessel may be measured for its Panama Canal certificate by the surveyor of any port of the United States, and copies of the rules for measurement have been sent to the Governments of all the principal maritime countries where duly appointed foreign officials may measure vessels and issue certificates; and the canal maintains a staff to measure vessels which arrive at the canal without a certificate, and to check the certificates issued at other ports. The canal force can measure and certificate vessels ordinarily in from 24 to 36 hours; if the masters furnish the constructor's blue prints and the ship's certificate of national registry, or check a previously issued certificate in an hour unless it contains exceptional errors.

Gross tonnage, according to The Panama Canal rules, includes, in general, the total capacity of the vessel or the cubical contents of all spaces below the upper deck and of all permanently covered or closed-in spaces on or above that deck, excepting spaces specifically designated for exemption from such measurement.

The principal deductions from the gross tonnage for the determination of the net tonnage include, in general, spaces which serve for the navigation of the ship, its propulsion, spaces devoted to the officers and crew, for its fuel supply, boatswain's stores, feed-water tanks, and spaces framed in around the funnels for the admission of light and air to the engine and fire rooms. No space not included in the gross tonnage is ever deducted in the determination of the net tonnage.

The canal system of designation of tonnage differs somewhat from the systems in practice in the United States and various foreign nations and from that for the measurement of vessels for the Suez Canal. The classifications of space for registry are at such variance that it was decided to work out a separate plan for the measurement of vessels for the canal which should be fair to all, irrespective of previous registry.

On loaded commercial vessels the toll charge is \$1.20 per net canal ton, plus \$1.20 per 100 cubic feet of deck load, provided that the sum of these charges shall not exceed an amount equivalent to a charge of \$1.25 per net ton on the vessel, as measured for United States registry.

Vessels going through the canal without cargo or passengers—that is, in ballast—will be charged 72 cents per net canal ton, provided that if this amount is not equivalent to the product of the vessel's net tonnage according to measurement for American registry by 75 cents, the larger sum shall be collected.

In commercial operations, steamship agents charge freight on the basis of weight or of space occupied. On the basis of space, they ordinarily rate 40 cubic feet as a ton. Accordingly, the 100 cubic feet called a ton in canal measurement could contain two and one-half tons of cargo, on the commercial basis of 40 cubic feet to the ton. In the case of ideally compact loading, the canal toll of \$1.20 per ton of canal space would be equivalent to a charge of 48 cents per ship's ton of cargo.

FACILITIES FOR SHIPPING

In line with its policy of making the canal thoroughly serviceable in a commercial sense, the Government is equipping it with all requisite facilities to minimize the incidental delays and expenses of vessels passing through it.

The facilities are now ample for the present traffic, except for the lack of a large dry dock. The concrete has been placed for the permanent dry dock at Balboa, which will accommodate the largest vessels afloat, and is to be finished early in 1916.

Extensive fuel-oil handling plants, with which are connected tanks belonging to individuals and companies, as well as those erected by the Government, have been established at both terminals of the canal. Oil can be supplied to ships at the rate of 1,200 barrels per hour to each vessel.

The permanent coaling plants, now under construction at both terminals, will each be able to load coal into bunkers of vessels at the rate of 2,000 tons per hour. The plant at the Atlantic entrance is to have a storage capacity of a little over 400,000 tons, and that at the Pacific entrance will have a capacity of 200,000 tons. Both will be equipped with unloading and loading cranes. These plants are to be completed early in 1916.

Water is supplied from the mains on the terminal wharves and piers. The water in Gatun Lake is fresh, but is not safe for drinking purposes in an untreated state. The water sold at the docks is drawn from the regular water-supply systems and has been purified.

GENERAL SUPPLIES

As The Panama Canal and the Panama Railroad Company are together operating a large number of vessels of a variety

of classes, from tugs to ocean-going passenger and freight vessels, supplies for practically any kind of vessel are kept on hand on the Isthmus. Such supplies are for sale to all ships using the canal, or calling at the terminal ports. The storehouses at Cristobel and Balboa have in stock all standard lubricants, light and heavy hardware, cordage, and miscellaneous ship-chandlery supplies.

Foodstuffs and the general variety of merchandise handled by the commissary department of The Panama Canal may be purchased for ships. Prices are generally lower than the retail prices in the United States, or possibly about 10 per cent higher than the wholesale prices there, and compare favorably with prices in any port of the world.

A large stock of fresh meats, vegetables, fruits, canned groceries, bakery products, etc., is always on hand, and advance arrangements can be made for supplies of any article obtainable in the markets of the world. Ice may be purchased in any reasonable quantity. Laundry is handled quickly.

Except for the limitations imposed at present by the absence of a large dry dock, and of lathes for turning the largest crank shafts and longest line shafts of modern vessels, the canal shops can do practically any repair work which a vessel might bring. Sufficient materials, including heavy billets and all sizes of plates and angles, are kept on hand to meet every probable need. The foundry can make steel castings up to 5 tons in weight, and iron castings up to 10 tons, as well as brass castings of any ordinary size.

The Hotel Washington at Colon and the Hotel Tivoli at Ancon, adjoining Balboa, and the Hotel Aspinwall, on Taboga Island, are owned and operated by the Government for the accommodation of the traveling public. Reservations can be made in the same way as at privately owned hotels.

Ancon Hospital is equipped with 800 beds. It treats about 35,000 cases a year, in which approximately 7,000 surgical operations are performed. Its staff of physicians and surgeons includes men of marked experience and ability and several experts in tropical medicine. The treatment of case from neighboring countries and from ships is a part of its regular work.

THE RELIEF OF BELGIUM

Among the achievements of the year 1915 in which Americans may take a just pride, is the work of The Commission for Relief in Belgium. This Commission obtained, delivered and distributed all the food that has reached the Belgian people, and to it is due the fact that the nation is still alive. It was officered and manned almost wholly by Americans, forty-nine of the fifty-three members of the Commission, who all served without pay, being Americans, as were also many of the workers in the field in Belgium and the great army of helpers all over the United States. At its head in London was Mr. Herbert C. Hoover, the well known mining engineer, and in charge of the work in the United States was Mr. Lindon W. Bates.

In October, 1914, the fall of Antwerp closed the last door by which food could be brought into Belgium. To prevent this catastrophe the Commission was organized under the auspices of the diplomatic representatives of the United States, Spain and Holland, and with the consent of the belligerent powers, Great Britain, France and Germany. Constituted so as to give ample guarantees of its neutrality, the Commission was enabled to appeal to the whole world for aid in its great task. The whole world generously responded and millions of dollars in money and food were contributed by the charitable in every country. The share of the United States was greatest, its contribution amounting to not less than \$5,000,000, chiefly in wheat, flour and other foods.

The Commission had not been long in existence before it became plain that the task before it was not merely to relieve a present crisis, but to provision the whole Belgian people for a period of some months—at least until the next harvest. This meant providing not less than 80,000 tons of food per month for approximately eight months, at a total cost of over \$60,000,000—an undertaking beyond the scope of any charitable effort, no matter how strenuous its appeal.

Financial support on a great scale was therefore sought and obtained, chiefly from Belgian banks, financiers and business

men, who provided a fund of working capital of about \$13,000,000. Fortunately the greater part of the people of Belgium were able to pay for the very slender daily ration available, and a small profit charged upon the supply that was sold, sufficed, together with the gifts of the charitable throughout the world, to make up the amount required by the destitute. Throughout the winter of 1914-15 each person received the small ration of ten ounces of food per day, and it was actually furnished at a price slightly less than that of similar food in the open market at London.

This is the essential achievement of the Commission:—To have devised an international, neutral organization such as could operate under the conditions of war, across hostile frontiers with the consent of the several belligerent powers; to have gathered food in vast quantities by gift and purchase; to have transported it across 3,000 miles of sea; to have distributed it fairly and equitably to 7,000,000 people, of whom 1,500,000 were destitute; to have accomplished this largely with volunteer labor, at a total cost of less than 2% of the turn-over, and to have thus saved from famine an entire nation in a state of siege and unable to do anything for themselves.

RAILWAY MILEAGES

The overwhelming leadership of the United States as a railway nation is shown clearly in a comparison of individual countries, for after its 254,769 miles (including 653 for Alaska), Germany is second with only 39,513 miles, while European Russia is third with 38,563. Then follow in order, British East India, 34,572; France, 31,737; Canada, 29,235; Austria-Hungary, 28,641; Great Britain, 23,385; Argentina, 20,593; Mexico, 15,805; Brazil, 15,491; Italy, 10,933; Spain, 9,517; Sweden, 8,984, and Japan, 6,811.

FEDERAL INCOME TAX LAW FOR INDIVIDUALS AND FIDUCIARIES

PERSONS TAXABLE

Every citizen or resident of the United States is taxable in respect to net income from all sources. Non-resident aliens are taxable in respect to net income from all sources within the United States.

SPECIFIC EXEMPTION

For the purpose of the normal tax only, an exemption of \$3,000 is allowed—I, e., a person is not taxable unless his net income is in excess of \$3,000. In the case of the head of a family, or a married man with his wife living with him, or a married woman with her husband living with her, the exemption is \$4,000. But only one deduction of \$4,000 shall be made from the aggregate income of both husband and wife living together. Husband and wife separated and living permanently apart are each entitled to the personal exemption as if single.

When a husband dies during any year the widow should make up her return of her income for the whole year, and is entitled to the personal exemption as for her single state at the close of the year.

For the purpose of the additional tax, the income of every person is taxable separately. Under the new law, a non-resident alien may receive the benefit of the specific exemption, but only by causing to be filed a true and accurate return of his total income received from all sources in the United States.

KATKS

The tax is annual in respect to income of the preceding calendar year. The new rates apply, beginning with the year 1917.

Normal Tax—Two per cent.

1%	on amount over	\$20,000,	and not over	\$40,000
2%	" " "	40,000,	" " "	60,000
3%	" " "	60,000,	" " "	80,000
4%	" " "	80,000,	" " "	100,000
5%	" " "	100,000,	" " "	150,000
6%	" " "	150,000,	" " "	200,000
7%	" " "	200,000,	" " "	250,000
8%	" " "	250,000,	" " "	300,000
9%	" " "	300,000,	" " "	500,000
10%	" " "	500,000,	" " "	1,000,000
11%	" " "	1,000,000,	" " "	1,500,000
12%	" " "	1,500,000,	" " "	2,000,000
13%	" " "	2,000,000		

ANNUAL RETURNS

A personal return of income is required from every person of lawful age, having a net income of \$3,000 or over for the taxable year.

Under the new law, a return will be required if net income amounts to \$3,000, although said income consists in part or in whole of dividends. As a result, a person may have to make a return, although he may have to pay no tax. Husband and wife must make a return if the income of either amounts to \$3,000, or if the aggregate income of both exceeds \$4,000.

In case of the death of a person during a year, the executor or administrator is required to make the personal return of income of the decedent to the date of his death, and may claim the specific exemption. In case of illness, absence, or non-residence, the return may be made by an agent, who is then responsible in relation to the return. In the case of minors and incompetents, the guardian or committee is required to act as agent in making the personal return and paying the tax, normal and additional, for the person under his care. Similar requirements apply to fiduciaries of non-resident aliens.

In like manner, the responsible heads, agents, or representatives of non-resident aliens who are in charge of property owned or business carried on in the United States are required to make full and complete return of the income therefrom, on behalf of such aliens, and to pay the tax, normal and additional.

FILING RETURNS

Time for filing return is on or before March 1st. The commissioner of Internal Revenue may grant a reasonable extension of time to persons residing or traveling abroad. Failure to file return within the required time subjects the person to a

penalty of 50 percent addition to the tax, and liability to fine, if, however, a return, although late, is made voluntarily and without notice from the collector, and it is shown that the failure to file it was due to a reasonable cause and not to wilful neglect, no penalty is to be added. In case of failure to make return within the required time, the collector may render a return upon such information as he may have; he may summon and examine the person. In case of sickness or absence, the collector may allow such further time, not exceeding thirty days, for filing the return, as he deems necessary.

Returns are filed at the office of the Collector of Internal Revenue of the district in which the person has his legal residence or his principal place of business. The acknowledgment of a return may be made before the collector or any commissioned deputy, or before any officer authorized by law to administer oaths. Special rulings are as follows:

(1) A return of income rendered by an individual residing abroad may be acknowledged before any duly appointed officer of the country in which he resides, authorized to administer oaths and use an official seal.

(2) If a return is executed in a State before a notary who is not required by the laws of the State to use a seal, and none is used, or before a justice of the peace, a certificate of an officer possessing a seal should be filed with the Commissioner of Internal Revenue, showing that the notary or justice is duly commissioned and authorized to administer oaths; otherwise the certificate to the return will not be recognized, except that such certificate of authority may be waived in that State or in any other State where such jurats are accepted in that form in the State Courts.

(3) Returns acknowledged before commanding officers of naval vessels while at sea or in foreign ports will be accepted.

(4) Returns executed before a summary court officer, United States Army, will not be accepted.

All of the necessary forms in connection with the income tax may be obtained from the Collector of Internal Revenue of the district.

INCOME

Gross income, under the law, includes gains, profits, and income from any source whatever, in whatever form received.

For the purpose of the additional tax, the income of the individual shall include the share to which he would be entitled of the profits accumulated by any mere holding company beyond the reasonable requirements of the business, upon decision to that effect by the Secretary of the Treasury.

WHEN RETURNABLE

Income, gains and profits, and losses, also, are in general to be included in the return for the year in which actually realized, regardless of when accrued.

In determining the profits of a business, however, the usual method of merchants is followed by figuring from the books and inventory. Income from a partnership is returnable when determined, whether distributed or not; a partner should, therefore, include in his return his share of the profits of the partnership as shown by the books when closed at the end of the business year falling within the calendar year for which the individual return is being made.

A promissory note is held to be payment and is returnable as income when received.

Interest on bank accounts is returnable for the year in which it is credited.

Coupons or interest on bonds due and payable prior to March 1, 1913 (the date of incidence of the income tax), are considered income prior to the law, although not collected until the present, even although funds were not previously available.

The new law provides that any individual keeping accounts upon any basis other than that of actual receipts and disbursements, unless the Commissioner of Internal Revenue finds that such other basis does not clearly reflect his income, may, subject to regulations, make his return upon the basis upon which his accounts are kept.

DIVIDENDS

Dividends are returnable as income if made or ordered to be made out of earnings or profits accrued since March 1, 1913. Stock dividends are considered income to the amount of their cash value.

GAIN OR LOSS ON PROPERTY

No account is taken, for purposes of income tax, of fluctuations in market value or arbitrary changes in the book value of securities or other property, but gain or loss is counted only when determined as the result of a completed transaction.

Profit or loss is the difference between the selling price and the cost.

Under the new law, in the case of property acquired before March 1, 1913, instead of pro rating, the fair market price or value of the property as of that date is taken as the basis.

In the case of various parcels of stock of the same issue bought and sold at different dates, the stock sold at any time, if its identity cannot be established by the certificate, should be charged against the stock first purchased and remaining unsold.

PARTICULAR ITEMS OF INCOME

Special payments made by an employer as extra compensation or bonus to employees, if made as compensation for services rendered and in pursuance of a contract, express or implied, or a long time practice, if the total compensation is not unreasonable in amount, may be treated as expenses of the business, and are taxable income to the employees. It is otherwise, however, where the payment is purely optional and gratuitous. In any case, Christmas gifts are regarded as gifts, even though given in pursuance of a regular practice. Where an employee is furnished living quarters in addition to salary, the rental value of such quarters is taxable income. Allowances to an employee for expenses while away from home, however, are not regarded as income, except to the extent, if any, that such allowance may exceed the actual necessary expenses. Easter offerings and fees received by clergymen for funerals, masses, baptisms, marriages, etc., are regarded as taxable income. Christmas gifts, however, are not. Where property acquired by gift, descent, devise or bequest, is subsequently sold at a price greater than the appraised value at the time the property was so acquired, the gain is held to be taxable income. Accrued interest paid by the purchaser of a bond is income to the seller, and the purchaser need include in his return only that portion of the current interest later received by him which accrued after the purchase. Proceeds of sale of rights to subscribe to new stock in a corporation are held to be taxable income. Pensions paid by the United States are taxable income.

Alimony or separate maintenance fund, paid to a wife, is taxable income to the wife. It is a personal expense, and, therefore, not deductible in the return of the person who pays it. Money paid to the person insured by an accident insurance policy on account of accidents sustained is taxable income. The proceeds of accident insurance policies paid upon the death of the person insured to the beneficiaries are to be treated like the proceeds of life insurance policies. An amount received as the result of a suit or compromise for "pain and suffering" is held to be taxable income. Amounts received, however, by way of reimbursement for expenses incurred incident to an accident are not subject to tax. Income from rental of property is taxable, but in computing the same deduction may be made of expenses, including premiums on fire insurance and an allowance for depreciation. Commissions paid to a real estate agent for collection of rents and management of property may be deducted. Improvements made by a tenant as part payment of rent are to be added to the rent as income to the landlord.

Royalties or other income from patent rights are taxable. In case of sale of all rights under a patent, the proceeds over and above amounts expended in perfecting the invention and obtaining the patent, are taxable income.

FARMS AND FARMERS

All gains, profits and income derived from the sale or exchange of farm products, whether produced on the farm or purchased and resold by a farmer, shall be included in the return of income for the year in which the products were actually marketed and sold; and all allowable deductions, including the legitimate expenses incident to the production of that year or future years, may be claimed in the return of income for the tax year in which the right to such deduction shall arise, although the products to which such expenses and deductions are incidental may not have been sold or exchanged for money, or a money equivalent, during the year for which the return is rendered.

Rents received in crop shares shall likewise be returned as of the year in which the crop shares are reduced to money or a money equivalent, and allowable deductions, likewise, shall be claimed in the return of income for the tax year to which they apply, although expenses and deductions may be incident to products which remained unsold at the end of the year for which the deductions are claimed. When farm products are held for favorable market prices, no deduction on account of shrinkage in weight or physical value, or losses by reason of such shrinkage or deterioration in storage, shall be allowed.

Cost of stock purchased for resale is an allowable deduction under the item of expense, but money expended for stock for breeding purposes is regarded as capital invested, and the amounts so expended do not constitute allowable deductions except as hereinafter stated.

Where stock has been purchased for any purpose, and afterwards dies from disease or injury, or is killed by order of the authorities of a State or the United States, and the cost thereof had not been claimed as an item of expense, the actual purchase price of such stock, less any depreciation which may have been previously claimed, may be deducted as a loss. Property destroyed by order of the authorities of a State or of the United States may, in like manner, be claimed as a loss; but if reimbursement is made by a State or the United States, in whole or in part, on account of the stock killed or property destroyed, the amount received shall be reported as income for the year in which reimbursement is made.

The cost of farm machinery is not an allowable deduction as an item of expense, but the cost of ordinary tools may be included under this item.

There may be claimed a reasonable allowance for depreciation on farm buildings (other than a dwelling occupied by the owner), farm machinery and other physical property, including stock purchased for breeding purposes; but no claim for depreciation on stock raised or purchased for resale will be allowed.

Farmers who keep books according to some approved method of accounting which clearly shows the net income, may prepare their returns from such books, although the method of accounting may not be strictly in accordance with the provisions hereof.

A person cultivating or operating a farm for recreation or pleasure, on a basis other than the recognized principles of commercial farming, the result of which is a continual loss from year to year, is not regarded as a farmer. In such cases, if the expenses incurred in connection with the farm are in excess of the receipts therefrom, the entire receipts from sale of products may be ignored in rendering a return of income; and the expenses incurred being regarded as personal expenses will not constitute allowable deductions in the return of income derived from other sources.

EXEMPT INCOME

The following income is exempt from tax:

(1) The proceeds of life insurance policies paid to individual beneficiaries upon the death of the insured; the amount received by the insured as a return of premiums paid by him under life insurance, endowment, or annuity contracts, either during the term or at the maturity of the term mentioned in the contract or upon the surrender of the contract. Dividends on paid-up policies, however, are taxable income. They are considered the same as dividends of corporations subject to the tax on income and are, therefore, deductible as credits in relation to the normal tax.

(2) The value of property acquired by gift, bequest, devise or descent, but the income from such property is to be included as income.

(3) Interest upon the obligations of a State or any political subdivision thereof, or upon the obligations of the United States or its possessions, or securities issued under the provisions of the Federal Farm Loan Act of July 17, 1916. "Political subdivision" of a State includes any special assessment district for a public purpose, such as schools, streets or highways, sewerage, levee, land reclamation.

(4) The compensation of the present President of the United States during his present term, and of the judges of the Courts of the United States now in office, and the compensation of all officers and employees of a State or any political subdivision thereof, except when such compensation is paid by the United States.

DEDUCTIONS

In computing net income, the following deductions are allowable:

(1) Necessary expenses actually paid in carrying on any business or trade, not including personal, living or family expenses. Premiums paid on life insurance do not constitute allowable deductions. Nor do premiums for insurance on property occupied by the owner as a dwelling.

Assessments made by a corporation on its capital stock are regarded as an investment of capital and do not constitute an allowable deduction to the stockholder.

(2) Interest paid within the year on indebtedness.

(3) All taxes paid within the year, not including those assessed for local benefits. Income tax paid in any year is deductible in the return made in the following year. Customs duties paid are deductible as taxes, or, in the case of a dealer, may be added to the cost of the goods. Where taxes assessed on its shares are paid on behalf of shareholders by a bank or other corporation, such taxes are an allowable deduction to the shareholders in respect to the normal tax. The person entitled to the deduction is the owner of the stock at the time the taxes became due and payable.

(4) Losses actually sustained during the year, incurred in business or trade, or arising from fires, storms, shipwreck and from theft or other casualty, when not compensated for by insurance or otherwise. Losses from dealings in property, in order to be deductible under this paragraph, must be incurred in business or trade. A person may be engaged in more than one business or trade, and may deduct losses incurred in all. To come within the terms "business and trade," however, the transaction must be in the line of an actual, regular occupation.

(5) In transactions entered into for profit, but not connected with the business or trade of the person, the losses actually sustained during the year, to an amount not exceeding the profits arising therefrom.

(6) Debts due to the taxpayer actually ascertained to be worthless and charged off during the year.

(7) A reasonable allowance for depreciation of property arising out of its use or employment in business or trade, and for depletion of oil and gas wells and mines. Depreciation relates only to physical property, subject to wear and tear and obsolescence. The rule for ascertaining allowance for depreciation is to compute it upon the basis of the cost of the property and the probable number of years constituting its life. No deduction is allowed for expenditures for new buildings, permanent improvements or betterments, nor for expense of restoring property for which a depreciation allowance is or has been made.

In the case of non-resident aliens, deductions are allowed only in so far as they arise in the United States.

CREDITS

(1) Dividends or net earnings from corporations, etc., that pay the tax on income, are, for the purpose of the normal tax only, deducted as credits. They must, however, be included in the return, even though the taxpayer is subject to the normal tax only. Dividends of foreign corporations that derive their entire income from business done wholly within the United States and pay the income tax thereon, are treated like dividends of domestic corporations.

(2) Income on which the normal tax has been withheld at the source, is credited in like manner.

PARTNERSHIPS

Persons carrying on business in partnership are held for income tax only in their individual capacity, and the share of the profits of a partnership to which any taxable partner would be entitled if the same were divided, whether divided or not, is to be included in the return of such partner. Any partnership, upon request of the Commissioner of Internal Revenue or of the district collector, is required to render a correct return of the earnings, profits and income of the partnership, setting forth the items of gross income and the proper deductions, and the names of the partners entitled to shares.

Limited partnerships are held to be associations within the meaning of the law, and make their returns as corporations, and their earnings distributed are treated in the same manner as dividends.

Private banks, likewise, which have the form of corporate

organization, elect officers and a board of managers, have a distinctive name, a fixed situs, and distribute their net earnings upon the basis of the amount of capital invested by the members or owners, are held to be associations within the meaning of the law.

Premiums paid on life insurance policies taken out by a partnership upon the lives of individual members of such partnership constitute allowable deductions in ascertaining the net profits of the partnership. When such policies mature, however, or upon the death of the insured partner, the amount received as life insurance should be included in the gross income of the partnership. The requirement of withholding the tax at the source does not apply to income payable to partnerships. A form of certificate is provided for use of partnerships, organizations and fiduciaries for the purpose of establishing their identity and non-liability to having the tax withheld at the source on income payable to them.

FIDUCIARIES

Guardians, trustees, executors, administrators, receivers, conservators, or persons, corporations, or associations acting in any fiduciary capacity, are required to make returns of the income of the estates in their hands. A person acting under power of attorney in the management of property, with full power and authority to deal with the property, but having no title thereto in a trust capacity, is not a fiduciary within the meaning of the law, and is, in general, under no obligation to make a return for his principal.

In the case of estates of deceased persons during the period of settlement, and of trust estates accumulating for the benefit of unborn or contingent persons, or persons with contingent interests, the income of the estate as a whole is subject to normal and additional tax in the hands of the fiduciary. Where the whole income of the estate is distributable annually to existing beneficiaries, the fiduciary is required to make no return unless the income of some beneficiary exceeds \$3,000, and the rate of tax and method of computing the same are based upon the amount of the individual share of each beneficiary. If the share of any beneficiary exceeds \$3,000 the fiduciary is required to withhold the normal tax, subject to the usual rights of the individual to exemption and deductions. To determine whether the share of a beneficiary exceeds \$3,000 so as to require withholding, the net income of the estate is figured exclusive of dividends and other exempt income. A fiduciary acting for the same beneficiary in more than one estate should account for each estate separately, and, if the amount of income from no one estate exceeds \$3,000, no return is required. If, however, the creator of two or more trusts is the same person and the trustee is the same, the trustee should make a single return of all such trusts, notwithstanding that they arise from different instruments, or that the beneficiaries are different.

A receiver distributing the assets of a bankrupt individual or firm to the creditors is required to make no return in respect thereto. The receiver would, however, be required to file a fiduciary return if interest payments to any creditor aggregated in excess of \$3,000. A special form is prepared for returns by fiduciaries. A return by one of two or more joint fiduciaries, filed in the district where such fiduciary resides, is sufficient. The return by a fiduciary, ordinarily, is separate and distinct from the personal return by the individual. A fiduciary, however, acting for a minor or insane person, having a net income in excess of \$3,000, should make the general personal return as agent for his ward, and pay the tax, normal and additional. In such case, he need make no return on the fiduciary form, unless he has more than one ward in the same estate, in which event he should file the fiduciary form, and a separate personal return for each ward having a net income in excess of \$3,000. Similar requirements apply to fiduciaries for non-resident aliens. On notice, a fiduciary is not subject to withholding of the tax at the source on income payable to him as such; the fiduciary himself is treated as the source.

Expenses of administration of an estate, such as court costs, attorneys' fees, executors' commissions, etc., are chargeable against the corpus of the estate, and are not allowable deductions from income. Inheritance taxes, also, are a charge against the corpus. Whether commissions of a fiduciary are deductible from the corpus of the estate or from the income accruing to the beneficiaries, depends upon the State laws, the terms of a will, or the decree of court. All amounts paid by fiduciaries to beneficiaries from the income of trust estates are held to be distribution of income. Allowances for expenses or depreciation

to preserve the corpus of the estate are permissible only when actually reserved or applied, in accordance with the facts, or proper provisions of the trust, the requirements of law or order of court. The beneficiary should include in his return only the income actually received from the estate during the year. The fiduciary, however, should withhold the tax in respect to the beneficiary's distributable interest in the income of the estate during the year, whether distributed or not.

WITHHOLDING OF TAX

Withholding and payment at the source of income, relate to the normal tax only. Corporations, associations, partnerships, and fiduciaries are not subject to having the tax withheld on income payable to them. A form is provided for use to establish their identity and non-liability. It need not be filed, however, except in the case of interest from bonds and similar obligations of corporations, etc., if the payor assumes responsibility for the knowledge that the payee is not subject to withholding.

(1) ANNUAL PAYMENTS OVER \$3,000

Any person; firm, corporation, etc., having the payment of income to any individual as specified, exceeding \$3,000 for any taxable year, is required to withhold and to pay the normal tax thereon. The requirement applies to interest, rent, salaries, wages, premiums, annuities, or other fixed or determinable annual or periodical income, except dividends or earnings of corporations, etc., subject to the tax on income. A return is required, before March 1, showing the amount of income upon which the tax has been withheld, and the name and address of the person receiving the income. The tax should not be withheld until amount of payments during the year reaches an aggregate in excess of \$3,000; thereupon the tax should be withheld in respect to the whole amount.

RULINGS ON PARTICULAR POINTS

Fees and compensation of professional men, except fixed amounts payable at stated times, such as annual retainers of attorneys, are not subject to withholding of the tax. Commissions or bonus paid to salesmen are income for the calendar year in which determined and paid. If paid on a definite basis, they are determinable income, and are to be added to any stated salary for that year in determining whether the compensation exceeds \$3,000 so as to require withholding of the tax. Likewise, in the case of a definite share of profits distributed to an employee. If an employee, out of the salary paid him, has to pay his travel or other expenses of his employment, the salary is not subject to withholding of the tax, the amount of his income not being fixed or determinable. Alimony, or a fixed sum paid as maintenance to a wife living apart, is subject to withholding of the tax by the husband. A tenant, renting more than one piece of property from the same owner, should withhold the tax if the combined rentals exceed \$3,000. Where a lessee holds under a lease from two or more individuals, information should be given him of the share of each lessor, and he should withhold the tax in respect to each lessor separately. Notes received for items of income are regarded as payment, and the tax should be withheld at the time the notes are given. Where notes are given for interest which is payable at a future date, the debtor is required to withhold the tax upon payment, although the notes may have been purchased or discounted by one without notice that they were interest notes. Banking institutions receiving deposits of money are not required to withhold the tax on interest paid or accruing to depositors, whether on open account or on certificates of deposit.

(2) INTEREST ON BONDS

In the case of interest on bonds and mortgages or deeds of trust or other similar obligations of corporations, joint stock companies, associations and insurance companies, the requirement of withholding applies, although the interest during the year does not amount to \$3,000, unless exemption is claimed. A monthly list return of withholdings is required, and also annual list return and payment.

A corporation or organization subject to the requirement of withholding may, upon notice to the Collector of Internal Revenue, appoint paying and withholding agents to act for it in matters pertaining to the tax. A simple promissory note not exceeding one year in time is not considered similar to bonds, mortgages or deeds of trust of corporations, within this

provision, and the interest on such a note, therefore, is not subject to withholding of the tax unless the amount of interest during the year exceeds \$3,000. The same statement applies to scrip certificates issued by a corporation in lieu of dividends, bearing interest and redeemable at a specified time not longer than one year. Certificates of ownership must be filed by owners of such bonds or similar obligations with the coupons or interest orders. But no certificate of ownership is required if the bonds are registered as to interest as well as principal, in which case the payor corporation should stamp the interest order or check either "Income tax withheld by debtor," or, if exemption has been claimed, "Exemption claimed by certificate filed with debtor."

If coupons or interest orders are not accompanied by certificates of ownership as required, the first bank or collecting agent receiving the same for collection will deduct the tax and attach its own certificate, giving the name of the owner, or, if the owner is not known, the name of the person presenting the same. A separate certificate is required for each maturity of coupons of each issue of bonds. Where bonds change hands between interest dates, at a price plus accrued interest, the purchaser only need file a certificate of ownership with the current coupon. Where, however, a corporation purchases or retires its own bonds between interest dates, the seller should file a certificate covering the portion of the accrued interest period prior to the sale. In case of joint ownership, the certificate may be signed by one of the joint owners, giving the names and interests of the other owners. The person signing, however, may claim exemption only in his own right, the other owners, to secure exemption, must sign claims to be attached to the certificate of ownership. duly authorized agents may sign such certificates of ownership. Withholding agents with whom such certificates are filed, if satisfied as to the identity and responsibility of agents, will stamp or write on the face of the certificate, "Satisfied as to identity and responsibility of agent." Certificates so marked may be accepted by all others to whom presented without question as to the authority of the agent. The use of initials is authorized in the execution of certificates of ownership. A married woman should sign her own Christian name.

(3) FOREIGN ITEMS

Similarly, in the case of coupons, checks or bills of exchange for or in payment of interest on bonds of foreign countries or on foreign mortgages or like obligations (not payable in the U. S.), or of dividends upon the stock or interest upon the obligations of foreign corporations, associations and insurance companies, the tax is to be withheld, although the amount does not exceed \$3,000.

Dividends of foreign corporations that derive their entire income from business done wholly within the United States, and pay the income tax thereon, are treated like dividends of domestic corporations. Where foreign corporations have issues of bonds with interest payable within the United States, and have fiscal agents within the United States, the collection of interest on such bonds will be treated as a domestic transaction, if certificates of ownership are filed in the usual manner.

In the case of such foreign items, the withholding and return are to be made by:

(1) Any banker or person who sells or otherwise realizes such coupons, checks, or bills of exchange.

(2) Any person who obtains payment (not in the United States) in behalf of another of such dividends and interest by means of coupons, checks, or bills of exchange.

(3) Any dealer in such coupons who purchases the same for any such dividends or interest (not payable in the United States), otherwise than from a banker or another dealer in such coupons.

Any person, firm, or corporation undertaking as a matter of business or profit such collections, is required to obtain a license and to be subject to regulations of the Commissioner of Internal Revenue.

(4) PERSONAL OR SPECIFIC EXEMPTION

A person may claim his personal or specific exemption of \$3,000 or \$4,000, as the case may be, in respect to any of his income. He may allow the tax to be withheld on his income subject to withholding, and claim his exemption on other income included in his personal return, or he may apply part or all of his exemption to income otherwise subject to withholding of the tax. To secure exemption from withholding at the source,

the recipient of the income must file a signed notice in writing claiming exemption with the withholding agent, at least thirty days prior to March 1, otherwise his remedy is only by application for refund of the tax.

(5) BENEFIT OF DEDUCTIONS

Similarly, to secure the benefit of deductions allowed by the law in computing net income, in respect to income otherwise subject to withholding of the tax, the recipient of the income must file, at least thirty days prior to March 1, a true and correct return of his income from all other sources, and the deductions claimed, either with the withholding agent, or with the collector of the district, who will thereupon notify the withholding agent. If there is more than one withholding agent in respect to whom the claim for benefit of deductions is to apply, the claim should be filed with the collector of the district of any such withholding agent, with a statement attached setting forth the names of the withholding agents, the amounts withheld by each, and the amount claimed from each as exempt. The collector will notify the withholding agents accordingly. When any amount allowable as a deduction is known at the time of the receipt of income, a certificate may be filed stating the amount of such deduction and making a claim for allowance of the same.

Any certificate claiming exemption or benefit of deductions should be filed by the withholding agent along with his return.

The withholding agent should not pay the tax withheld until after the time allowed for claiming exemption or benefit of deductions—that is, not before thirty days prior to March 1. The withholding agent is not required to pay the tax withheld until notice of assessment, and then within the usual time for payment of income tax.

ASSESSMENT AND PAYMENT

Assessments are made by the Commissioner of Internal Revenue, and all persons are to be notified of the amounts for which they are liable on or before June 1, and the tax is payable under the new law on or before June 15th. Upon any taxes due and unpaid after June 15th, and for ten days after notice and demand by the Collector, 5 per cent. is added, and interest at the rate of 1 per cent. per month, except in the case of the estates of insane, deceased or insolvent persons.

The Collector issues in every case an office receipt, which alone is evidence of payment. There is no objection to collectors signing also commercial receipts or voucher checks, but they should stamp them "Not an official receipt."

In the case of a debtor paying tax withheld, a separate receipt may be required in respect to each creditor for whom tax is paid. A creditor, by giving his debtor a receipt in full including the amount of the tax, may obtain the receipt for the tax.

INTERNAL-REVENUE COLLECTION DISTRICTS

DISTRICT	ADDRESS	DISTRICT	ADDRESS
Alabama (includes Mississippi).....	Birmingham	11th Ohio.....	Columbus
Alaska (see Washington).		18th Ohio.....	Cleveland
Arizona (see New Mexico).		Oklahoma.....	Oklahoma
Arkansas.....	Little Rock	Oregon.....	Portland
1st California.....	San Francisco	1st Pennsylvania.....	Philadelphia
6th California.....	Los Angeles	9th Pennsylvania.....	Lancaster
Colorado (includes Wyoming).....	Denver	13th Pennsylvania.....	Scranton
Connecticut (includes Rhode Island).....	Hartford	23rd Pennsylvania.....	Pittsburgh
Delaware (see Maryland).		Rhode Island (see Connecticut).	
Florida.....	Jacksonville	South Carolina.....	Columbia
Georgia.....	Atlanta	South Dakota (see North Dakota).	
Hawaii.....	Honolulu	Tennessee.....	Nashville
Idaho (see Montana).		Texas.....	Austin
1st Illinois.....	Chicago	Utah (see Montana).	
5th Illinois.....	Peoria	Vermont (see New Hampshire).	
8th Illinois.....	Springfield	2nd Virginia.....	Richmond
13th Illinois.....	East St. Louis	6th Virginia.....	Roanoke
6th Indiana.....	Indianapolis	Washington (includes Alaska).....	Tacoma
7th Indiana.....	Terre Haute	West Virginia.....	Parkersburg
3rd Iowa.....	Dubuque	1st Wisconsin.....	Milwaukee
Kansas.....	Wichita	2nd Wisconsin.....	Madison
2nd Kentucky.....	Owensboro	Wyoming (see Colorado).	
5th Kentucky.....	Louisville		
6th Kentucky.....	Covington		
7th Kentucky.....	Lexington		
8th Kentucky.....	Danville		
Louisiana.....	New Orleans		
Maine (see New Hampshire).			
Maryland (includes Delaware and the D. of C.).....	Baltimore		
3rd Massachusetts.....	Boston		
1st Michigan.....	Detroit		
4th Michigan.....	Grand Rapids		
Minnesota.....	St. Paul		
Mississippi (see Alabama).			
1st Missouri.....	St. Louis		
6th Missouri.....	Kansas City		
Montana (includes Idaho and Utah).....	Helena		
Nebraska.....	Omaha		
Nevada (see 1st California).			
New Hampshire (includes Maine and Vermont).....	Portsmouth		
1st New Jersey.....	Camden		
5th New Jersey.....	Newark		
New Mexico (includes Arizona).....	Phoenix, Ariz.		
1st New York.....	Brooklyn		
2nd New York (S. of 24th St., N. Y.).....	New York		
3rd New York (N. of 24th St., N. Y.).....	New York		
14th New York.....	Albany		
21st New York.....	Syracuse		
28th New York.....	Buffalo		
4th North Carolina.....	Raleigh		
5th North Carolina.....	Statesville		
North and South Dakota.....	Aberdeen, S. Dak.		
1st Ohio.....	Cincinnati		
10th Ohio.....	Toledo		

INCOME TAX RECEIPTS

(Year ending June 30, 1916)

Income tax, normal.....	\$23,995,777.28
Income tax, additional:	
Net incomes exceeding \$20,000 and not over \$50,000.....	6,091,775.71
Net incomes exceeding \$50,000 and not over \$75,000.....	4,071,361.94
Net incomes exceeding \$75,000 and not over \$100,000.....	3,623,472.62
Net incomes exceeding \$100,000 and not over \$250,000.....	10,936,326.15
Net incomes exceeding \$250,000 and not over \$500,000.....	6,393,858.64
Net incomes exceeding \$500,000.....	12,647,862.91
Accepted offers in compromise, etc.....	183,159.38
Total.....	\$67,943,594.63

INTERNAL-REVENUE RECEIPTS FOR THE FISCAL YEARS ENDED JUNE 30, 1915 AND 1916

Receipts	1915	1916
Ordinary only.....	\$283,410,138.71	\$303,507,733.03
Emergency.....	52,069,126.29	84,278,302.13
Corporation income.....	39,155,596.77	* 56,993,657.98
Individual income.....	41,046,162.09	67,943,594.63

Total..... 415,681,023.86 512,723,287.77

* Includes \$20,937.10 on account of income tax collected on railroads in Alaska.

LEGAL HOLIDAYS

Contrary to the general impression there is no national legal holiday. All holidays are made legal by State statute. Even Thanksgiving Day is a legal holiday only when made so by a law of the State. The President's proclamation merely announces the day.

There are six holidays observed generally throughout the United States:

NEW YEAR'S DAY—All States except Massachusetts.
 † WASHINGTON'S BIRTHDAY (Feb. 22)—All jurisdictions except New Mexico.

INDEPENDENCE DAY (July 4).
 LABOR DAY (first Monday in Sept.)—All States except New Mexico, Wyoming and part of Louisiana; May 1, Philippine Islands.

THANKSGIVING DAY—Whenever appointed; usually the last Thursday in November; all jurisdictions except Hawaii.

CHRISTMAS DAY (Dec. 25).
 These holidays and Memorial Day are legal holidays to all governmental executive departments by act of Congress. Other legal holidays are:

Jan. 8—Anniversary Battle New Orleans, La.
 Jan. 19—Lee's Birthday: Ala., Ark., Fla., Ga., Miss., N. C., S. C., Va. (Lee-Jackson Day in Va.)

Feb. 12—Lincoln's Birthday: Cal., Col., Conn., Del., Ill., Ind., Iowa, Mich., Minn., Mont., Nev., N. J., N. Y., N. D., Ore., Pa., S. D., Utah, Wash., W. Va., Wyo.

Feb. 14—Admission Day: Ariz.

Mar. 2—Anniversary Texan Independence: Tex.

Mar. 4—Inauguration Day: D. C. (every fourth year).

Mar. 7—Mardi Gras (Shrove Tuesday): Ala., Fla. in counties where there are carnival associations, La. in Parish of Orleans.

Mar. 22—Emancipation Day: Porto Rico.

April 12—Anniversary of the Adoption of the Halifax Resolutions: N. C.

April 13—Birth Day of Thomas Jefferson: Ala.

April 19—Patriots' Day: Me., Mass.

April 20—Thursday of Holy Week: Philippine Islands.

April 21—Good Friday: Del., Fla., La., Md., Minn., N. J., Pa., P. I., P. R.

April 21—Anniversary Battle San Jacinto: Tex.

April 26—Confederate Memorial Day: Ala., Fla., Ga., Miss.

May 10—Confederate Memorial Day: N. C., S. C.

May 20—Anniversary of signing of Mecklenburg Declaration of Independence: N. C.

May 30—Confederate Memorial Day: Va.

May 30—Memorial Day: In Dist. of Col., all States except Ala., Ark., Fla., Ga., La., Miss., N. M., N. C., S. C., Tex.

June 3—Jefferson Davis' Birthday: Ala., Ark., Fla., Ga., Miss., S. C., Tex.

June 3—Confederate Memorial Day: La., Tenn., Tex.

June 11—Anniversary of Union of Hawaiian Islands by Kamehameha I, 1795.

June 15—Pioneer Day: Idaho.

July 24—Pioneers' Day: Utah.

July 25—Anniversary of Landing of American Troops: P. R.

Aug. 1—Colorado Day: Col.

† Also designated Arbor Day in Texas.

* Other states provide by law for an arbor day, but do not make it a legal holiday except in a few cases for school children.

† Aug. 13—Assumption Day: P. I.
 Aug. 16—Brennington Battle Day: Vt.
 Sept. 9—Admission Day: Cal.
 Sept. 12—Defenders' Day: Md.
 Oct. 12—Columbus Day: Ala., Ariz., Ark., Cal., Col., Conn., Del., Idaho, Ill., Ind., Kan., Ky., Md., Mass., Mont., Neb., Nev., N. H., N. J., N. M., N. Y., Ohio, Okla., Ore., Pa., P. R., R. I., Tex., Vt., Wash., W. Va.
 Oct. 18—Alaska Day: Alaska.
 Oct. 31—Admission Day: Nev.
 Nov. 1—All Saints' Day: La.
 Nov. 6—General Election Day: All States, except Ala., Ark., Conn., Del., Ga., Kan., Me., Mass., Miss., Neb., Utah, W. Va. (Afternoon only in Ohio).
 Nov. 23—Repudiation Day: Frederick Co., Md., afternoon only.

Dec. 30—Rizal Day: Philippine Islands.

* Arbor Day is a legal holiday in Ariz. on the first Friday after Feb. 1 in some counties, on the first Friday after April 1 in others; in Neb., April 22; in Utah, April 15; in Wyo., on day set by governor.

Primary Election Days—Cal., Mo., Nev., S. D., Tex., Wis.

Congressional Election Day—Md.

Fast Day (whenever appointed): Cal., Col., Conn., D. C., Ga., Hawaii, Idaho, Ill., Ind., Iowa, Kan., Ky., Md., Mich., Mont., Neb., N. H., N. J., N. M., N. Y., N. D., Ohio, Okla., Ore., Pa., P. R., R. I., S. D., Tenn., Tex., Utah, Va.

Thursday of Fair Week—S. C. in counties where State Agricultural and Mechanical Society holds an annual fair.

Saturdays after 12:00 noon—Col. cities of 100,000 or more; Del., Newcastle Co. only June to Sept. inclusive, city of Wilmington all the year; D. C.; Ill. cities of 200,000 or over; Ind. for banks etc. in cities of over 35,000; La. towns of over 15,000; Me.; Md. in Baltimore, Annapolis, Baltimore Co., Hartford Co. and Montgomery Co.; Mich.; Mo. cities of over 300,000; N. J., N. Y.; Pa.; S. C. in Charleston and Richland Counties; Tenn.; and Va. In Virginia entire Sat. a holiday as to commercial paper.

Regatta Day—3rd Saturday in Sept. in Hawaii.

Sunday—All jurisdictions of the United States.

OTHER ANNIVERSARIES.

Jan. 29—Carnation Day; birthday of William McKinley.

Feb. 2—Candlemas or Groundhog Day.

Feb. 14—St. Valentine's Day.

Mar. 15—Birth Day of Andrew Jackson.

Mar. 17—St. Patrick's Day.

Apr. 27—Birth Day of Gen. U. S. Grant.

May 1—Dewey Day.

June 14—Flag Day.

June 17—Bunker Hill Day.

July 12—Orangemen's Day.

July 15—Stony Point Day; St. Swithin's Day.

Sept. 16—Antietam Day.

Oct. 31—Hallowe'en.

† Surrender of Manila to American forces.

* A legal holiday except in a few cases for school children.

PROGRESS IN LENGTH OF OCEAN STEAMSHIPS

		Feet	Tons
1838	1st to exceed	200	Great Western..... 1,340
1845	"	300	Great Britain..... 2,084
1858	"	680	Great Eastern..... 18,918
1871	"	400	Oceanic (1)..... 3,807
1881	"	500	Servia..... 7,392
1893	"	601	Campania..... 12,952
1899	"	685	Oceanic (2)..... 17,247
1904	"	709	Baltic..... 23,000
1907	"	762	Mauretania..... 31,938
1910	"	852	Olympic..... 46,359
1914	907 x 100 x 58 feet		Vaterland..... 54,282

ing or sailing 15 nautical miles in one hour. The *Nautical Mile* = 6,080 feet (the *Statute Mile* being 5,280 feet, and the *Geographical Mile* 6,076.8 feet). The following table shows the equivalents of 1 to 33 knots in statute miles.

Knots	Miles	Knots	Miles	Knots	Miles
1.....	1.1515.....	12.....	13.8181.....	23.....	26.4848
2.....	2.3030.....	13.....	14.9696.....	24.....	27.6363
3.....	3.4545.....	14.....	16.1212.....	25.....	28.7878
4.....	4.6060.....	15.....	17.2727.....	26.....	29.9393
5.....	5.7575.....	16.....	18.4242.....	27.....	31.0908
6.....	6.9090.....	17.....	19.5757.....	28.....	32.2424
7.....	8.0606.....	18.....	20.7272.....	29.....	33.3939
8.....	9.2121.....	19.....	21.8787.....	30.....	34.5454
9.....	10.3636.....	20.....	23.0303.....	31.....	35.6969
10.....	11.5151.....	21.....	24.1818.....	32.....	36.8484
11.....	12.6666.....	22.....	25.3333.....	33.....	37.9999

SPEED OF SHIPS

The *Knot* is a measure of speed of ships; the expression "15 knots" indicates that the vessel in question is capable of steam-

UNITED STATES GOVERNMENT

EXECUTIVE DEPARTMENT

President—Woodrow Wilson of New Jersey.....	Salary. *\$75,000
(Presidential term expires March 4th, 1912.)	
Vice-President—Thomas R. Marshall of Indiana.....	12,000
Secretary to President—Joseph P. Tumulty of N. J.....	7,500

CABINET PORTFOLIOS

(Officers appointed by President for no fixed term.)

DEPARTMENT OF STATE	
Sec. of State—Robert Lansing of N. Y.....	\$12,000
Duties.—To attend to all correspondence with the ambassadors and consuls of the U. S.; and with representatives of foreign powers sent to the U. S.; and to negotiations relating to foreign affairs of the U. S. He is also the medium of correspondence between the President and the governors of the States; also of foreign executives. He countersigns and affixes the U. S. seal to all executive proclamations. He is custodian of the treaties made with foreign states, and of the laws of the U. S. He grants and issues passports. He is also charged with certain annual reports to Congress relating to commercial information received from diplomatic and consular officers.	

DEPARTMENT OF THE TREASURY

Sec. of Treasury—William Gibbs McAdoo of N. Y....	\$12,000
Duties.—To manage national finances, superintend collection of all revenues. He is the government bookkeeper and grants all warrants for moneys expended. Submits to government an annual budget. He also controls the construction of public buildings; the coinage and printing of money; the administration of the life-saving, revenue cutter, and the public health and marine hospital branches of the public service. General supervision over national banks, also a new bureau of shipping.	

DEPARTMENT OF WAR

Sec. of War—Lindley Miller Garrison of N. J.....	\$12,000
Duties.—General supervision of Army; also supervision of construction of Panama Canal; the U. S. Military Academy at West Point; national cemeteries; publication of Official Records of the War of the Rebellion; Board of Ordnance and Fortification and matters relating to river and harbor improvements; establishment of harbor lines, and approves plans and locations of bridges which are constructed over navigable waters of the U. S.	

DEPARTMENT OF JUSTICE

Attorney-General—Thomas Watt Gregory of Texas....	\$12,000
Duties.—Represents the U. S. and the Cabinet in all matters of law; exercises a general superintendence and direction over U. S. attorneys and marshals in all judicial districts, and provides special counsel for the U. S. whenever required by any department of the government. Has charge of all prosecutions against illegal combinations under the Sherman Anti-Trust Law.	

POST OFFICE DEPARTMENT

Postmaster-General—Albert Sidney Burleson of Texas	\$12,000
Duties.—Appoints all officers and employees of the Dept., except the four Assistant Postmaster-Generals and the Purchasing Agent, who are appointed by the President; appoints postmasters whose compensation does not exceed \$1,000; makes postal treaties with foreign governments, with the advice and consent of the President. General charge of the postal service.	

NAVY DEPARTMENT

Sec. of Navy—Josephus Daniels of North Carolina....	\$12,000
Duties.—General supervision over Navy. Superintends construction armament and employment of warships. Has charge of Navy Yards.	

DEPARTMENT OF INTERIOR

Sec. of Interior—Franklin Knight Lane of Cal.....	\$12,000
Duties.—Superintends the bureaus for patents, pensions and bounty lands, public lands and surveys, the Indians, education,	

*\$25,000 also allowed for traveling expenses.

railroads, geological survey, reclamation of arid lands, investigation of methods of mining. Has charge of all national parks and reservations and the distribution of appropriations for agricultural and mechanical colleges.

DEPARTMENT OF AGRICULTURE

Sec. of Agriculture—David Franklin Houston of Mo..	\$12,000
Duties.—Besides having general supervision of business relating to agriculture and the gathering of agricultural statistics, he has charge of the Weather Bureau and the Forest Service. He also has control of the quarantine stations for imported cattle, of interstate quarantine rendered necessary by sheep and cattle diseases, and of the inspection of cattle-carrying vessels; and directs the enforcement of the meat inspection and food and drug laws under which the inspection of domestic and imported food products is carried on. He enforces the laws prohibiting the transportation of interstate commerce of game killed in violation of local laws. He furnishes sample seeds of various vegetables and flowers.	

DEPARTMENT OF COMMERCE

Sec. of Commerce—William Cox Redfield of N. Y....	\$12,000
Duties.—To promote mining, manufacturing, shipping, fishery, and transporting interests. His duties also comprise investigation of corporations. He has charge of the Light House Service, taking of the census, making of coast and geodetic surveys, collecting of statistics relating to foreign and domestic commerce, inspection of steamboats, supervision of fisheries, supervision and control of the Alaskan fur seal, salmon and other fisheries, and jurisdiction over merchant vessels and seamen of the U. S.	

DEPARTMENT OF LABOR

Sec. of Labor—William Bauchop Wilson of Penn.....	\$12,000
Duties.—To promote and develop the welfare of wage earners. He is also charged with the administration of the laws relating to immigration and the Chinese exclusion laws. The Bureau of Naturalization and the Bureau of Labor Statistics come under this department as well as the Children's Bureau.	

THE JUDICIARY

Supreme Court of the United States

Justices	Born	Appointed
Edward D. White, Chief Justice, La.....	Nov. 3, 1845	1910
Joseph McKenna, California.....	Aug. 10, 1843	1898
Oliver Wendell Holmes, Mass.....	Mar. 8, 1841	1902
William R. Day, Ohio.....	Apr. 17, 1849	1903
Willis Van Devanter, Wyoming.....	Apr. 17, 1859	1910
Mahlon Pitney, New Jersey.....	Feb. 5, 1858	1912
James Clark McReynolds, Tenn.....	Feb. 3, 1862	1914
Louis D. Brandeis, Mass.....	Nov. 13, 1856	1916
John H. Clarke, Ohio.....	Sept. 18, 1857	1916

The salary of the Chief Justice is \$15,000, of each Associate Justice \$14,500. The term is "during good behavior."

Circuit Courts of Appeals

There are nine Circuit Courts covering the various sections of the country. Each court is presided over by a justice from the Supreme Court when possible. Other members are District Judges specially designated in the circuit. Salary \$7,000.

District Courts

There are over 90 District Courts in the United States distributed according to population. The judges receive an annual salary of \$6,000.

Commerce Court

In 1909 Congress established a Commerce Court to have jurisdiction over all cases for the enforcement of orders of the Interstate Commerce Commission except those where the payment of money was involved. There are five judges, each receiving an annual salary of \$7,000 and \$1,500 for expenses.

Court of Customs Appeals

Composed of five judges to hear and decide questions as to classification and rates of dutiable goods. A court created by the tariff act of 1909.

DIPLOMATIC SERVICE OF THE UNITED STATES

AMBASSADORS

Country, Name and State, from whence appointed	Salary
Argentina—Frederic Jesup Stimson	\$17,500
Austria-Hungary—T. C. Penfield, Pa.	17,500
Brazil—Edwin V. Morgan, N. Y.	17,500
Chile—Joseph H. Shea	17,500
France—William G. Sharp, Ohio	17,500
Germany—James W. Gerard, N. Y.	17,500
Great Britain—Walter H. Page, N. Y.	17,500
Italy—Thomas Nelson Page, Va.	17,500
Japan—Geo. W. Guthrie, Pa.	17,500
Mexico—Henry P. Fletcher, Pa.	17,500
Russia—David R. Francis, Mo.	17,500
Spain—Joseph E. Willard, Va.	17,500
Turkey—Abram I. Elkus, N. Y.	17,500

ENVOYS EXTRAORDINARY AND MINISTERS
PLENIPOTENTIARY

Belgium—Brand Whitlock, Ohio	\$12,000
Bolivia—John D. O'Rear, Mo.	10,000
* Bulgaria—Charles J. Vopicka, Ill.	10,000
China—Paul S. Reinsch, Wis.	12,000
Colombia—T. A. Thomson, Tex.	10,000
Costa Rica—Edward J. Hale, N. C.	10,000
Cuba—William E. Gonzales, S. C.	12,000
Denmark—Maurice F. Egan, D. C.	10,000
Dominican Republic—William W. Russell, D. C.	10,000
Ecuador—Chas. S. Hartman, Mont.	10,000
Egypt—Agent and Consul General	6,500
† Greece—Garrett Drovers, Mass.	10,000
Guatemala—William Hayne Leavell, Miss.	10,000
Haiti—Arthur Bailly-Blanchard, La.	10,000
Honduras—John Ewing, La.	10,000
Liberia—James L. Curtis, N. Y., Minister and Consul General	5,000
Morocco—Vacant	10,000
† Netherlands—Henry Van Dyke, N. J.	12,000
Nicaragua—Benj. L. Jefferson, Colo.	10,000
Norway—A. G. Schmedeman, Wis.	10,000
Panama—William J. Price, Ky.	10,000
Paraguay—Daniel F. Mooney, Ohio	10,000
Persia—John L. Caldwell, Kan.	10,000
Peru—Benton McMillin, Tenn.	10,000
Portugal—Thomas H. Birch, N. J.	10,000
Salvador—Boaz W. Long, N. Mex.	10,000
Siam—Wm. H. Hornibrook, Ore.	10,000
Sweden—Ira Nelson Morris, Ill.	10,000
Switzerland—P. A. Stovall, Ga.	10,000
Uruguay—Robert E. Jeffrey, Ark.	10,000
Venezuela—Preston McGowdin, Okla.	10,000

* Accredited to Roumania, Serbia and Bulgaria.

† Accredited also to Montenegro.

‡ Accredited also to Luxemburg.

SECRETARIES OF EMBASSY OR LEGATION

The Secretaries of Embassy or Legation assigned for duty in the Department of State are Rutherford Bingham, of D. C.; Leland Harrison, of Ill.; Alexander C. Kirk, of Ill.; and William Walker Smith, of Ohio. Those unassigned are William Whiting Andrews, of Ohio; William P. Cresson, of Nev.; and Nelson O'Shaughnessy, of N. Y.

AMBASSADORS FROM FOREIGN COUNTRIES AT
WASHINGTON

Unless otherwise indicated names given are those of Envoys Extraordinary and Ministers Plenipotentiary. A. E. and P. means Ambassador Extraordinary and Plenipotentiary.

Argentina—Mr. Rómulo S. Naón, A. E. and P.
Austria-Hungary—Count Adam Tarnowski, A. E. and P.
Belgium—Mr. E. Havenith.
Bolivia—Señor Don Ignacio Calderon.
Brazil—Mr. Domicio da Gama, A. E. and P.
Bulgaria—Mr. Stephan Panaretov.
Chile—Señor S. A. Basouman, A. E. and P.
China—Mr. Vi Kyuin Wellington Koo.
Colombia—Señor Don Julio Betancourt.
Costa Rica—Señor Don Manuel Castro Quesada.
Cuba—Dr. Carlos Manuel de Céspedes.
Denmark—Mr. Constantin Brun.
Dominican Republic—Señor Dr. A. Pérez Perdomo.
Ecuador—Señor Dr. Don Gonzalo S. Córdova.
France—Mr. J. J. Jusserand, A. E. and P.
Germany—Count Johan Heinrich von Bernstorff, A. E. and P.
Great Britain—Sir Cecil Arthur Spring-Rice, A. E. and P.
Greece—Mr. A. Vourz, Chargé d'Affaires.
Guatemala—Señor Don Joaquin Méndez.
Haiti—Mr. Solon Ménos.
Honduras—Dr. Alberto Membrillo. (Absent). Señor Don R. Camilo Diaz, Chargé d'Affaires.
Italy—Count Vincenzo Macchi di Cellere, A. E. and P.
Japan—Viscount Sutemi Chinda, A. E. and P.
Mexico—Vacant.
Netherlands—Chevalier W. L. F. C. van Rappard.
Nicaragua—Señor Gen. Don Emiliano Chamorro.
Norway—Mr. H. H. Bryn.
Panama—Señor Dr. Don Eusebio A. Morales. (Absent). Señor Don J. E. Lefevre, Chargé d'Affaires.
Paraguay—Mr. Héctor Velázquez. (Absent).
Persia—Mehdi Khan. (Absent). Mirza Ali Kuli Khan, Chargé d'Affaires.
Peru—Mr. Manuel de Freyre y Santander, Chargé d'Affaires.
Portugal—Viscount de Alte.
Russia—Mr. George Bakmétéff, A. E. and P.
Salvador—Dr. Don Rafael Zaldivar.
Siam—Phya Prabha Karavongse.
Spain—Señor Don Juan Riaño y Gayangos, A. E. and P.
Sweden—Mr. W. A. F. Ekengren.
Switzerland—Dr. Paul Ritter.
Turkey—A. Rustem Bey, A. E. and P. (Absent). Abdul Hak Hussein Bey, Chargé d'Affaires.
Uruguay—Dr. Carlos Maria de Pena.
Venezuela—Señor Dr. Don Santos A. Dominici.

CONSULAR SERVICE

The consular service was reorganized in 1908 allowing for 57 consuls general divided into seven classes according to importance. The consuls general representing us at London and Paris belong to the first class. Each receives a salary of \$12,000. The consuls general at Berlin, Havana, Hamburg, Hongkong, Rio de Janeiro and Shanghai represent the second class and each receives \$8,000. The salary in the other classes varies from \$3,000 to \$6,000.

Besides the consuls general there are 240 consuls and 255 consular agents located in the principal cities of the various countries of the world, each receiving a salary ranging from \$2,000 to \$8,000.

CONSULAR SERVICE OF THE UNITED STATES

Residence	Argentina	Rank
Buenos Aires	Consul-General	
Rosario	Consul	
Austria-Hungary		
Budapest, Hungary	Consul-General	
Carlsbad, Austria	Consul	
Fiume, Hungary	Consul	
Prague, Austria	Consul	
Reichenberg, Austria	Consul	
Trieste, Austria	Consul	
Vienna, Austria	Consul-General	

Residence	Belgium	Rank
Antwerp	Consul-General	
Brussels	Consul-General	
Ghent	Consul	
Liege	Consul	

Brazil		
Bahia	Consul	
Ceara	Consular Agent	
Manaos	Consular Agent	
Maranhao	Consular Agent	
Para	Consul	

Residence	Brazil—Cont'd	Rank	Residence	France and Dominions—Cont'd	Rank
Pernambuco		Consul	Bayonne		Consular Agent
Rio de Janeiro		Consul-General	Bordeaux		Consul
Santos		Consul	Boulogne-sur-mer		Consular Agent
Sao Paulo		Consul	Brest		Consular Agent
Victoria		Consular Agent	Calais		Consul
	Bulgaria		Cette		Consular Agent
Sofia		Consul-General	Cherbourg		Consular Agent
	Chile		Dakar, Senegal		Consul
Antofagasta		Consul	Dieppe		Consular Agent
Arica		Consular Agent	Dijon		Consular Agent
Caldera		Consular Agent	Dunkirk		Consular Agent
Coquimbo		Consular Agent	Grenoble		Consul
Iquique		Consular Agent	Guadeloupe, West Indies		Consul
Punta Arenas		Consul	Hayre		Consul
Talcahuano		Consular Agent	La Rochelle		Consul
Valparaiso		Consul-General	Limoges		Consul
	China		Lyon		Consul
Amoy		Consul	Marseille		Consul-General
Antung		Consul	Martinique, West Indies		Consul
Canton		Consul-General	Nantes		Consul
Changsha		Consul	Nice		Consul
Chefu		Consul	Oran, Algeria		Consular Agent
Chungking		Consul	Paris		Consul-General
Fuchau		Consul	Rheims		Consul
Hankau		Consul-General	Roubaix		Consul
Harbin		Consul	Rouen		Consul
Mukden		Consul-General	Saigon, French Indo-China		Consul
Nankin		Consul	St. Etienne		Consul
Shanghai		Consul-General	St. Pierre-Miquelon		Consul
Swatow		Consul	Tabiti, Society Islands		Consul
Tientsin		Consul-General	Tamatave, Madagascar		Consul
Tsinan		Consular Agent	Tunis, Tunis		Consul
	Colombia			Germany and Dominions	
Barranquilla		Consul	Aix la Chapelle, Prussia		Consul
Cali		Consular Agent	Apia, Samoa		Consul
Cartagena		Consul	Barmen, Prussia		Consul
Medellin		Consular Agent	Berlin, Prussia		Consul-General
Santa Marta		Consular Agent	Brake, Oldenburg		Consular Agent
	Costa Rica		Bremen		Consul
Limon		Consul	Bremerhaven Bremen		Consular Agent
Puntarenas		Consular Agent	Breslau, Prussia		Consul
San José		Consul	Brunswick, Brunswick		Consul
	Cuba		Cassel, Prussia		Consular Agent
Antilla		Consular Agent	Chemnitz, Saxony		Consul
Baracoa		Consular Agent	Coburg, Saxe-Coburg-Gotha		Consul-General
Caibarien		Consular Agent	Cologne, Prussia		Consul
Cardenas		Consular Agent	Cuxhaven		Consular Agent
Cienfuegos		Consul	Danzig, Prussia		Consular Agent
Guantanamo		Consular Agent	Dresden, Saxony		Consul-General
Havana		Consul-General	Emden, Prussia		Consular Agent
Manzanillo		Consular Agent	Erfurt, Prussia		Consul
Matanzas		Consular Agent	Frankfort on the Main, Prussia		Consul-General
Nueva Gerona, Isle of Pines		Consular Agent	Gera, Reuss Schleiz		Consular Agent
Nuevitas		Consular Agent	Hamburg		Consul-General
Sagua la Grande		Consular Agent	Hanover, Prussia		Consul
Santiago de Cuba		Consul	Kehl, Baden		Consul
	Denmark and Dominions		Kiel, Prussia		Consular Agent
Copenhagen		Consul-General	Konigsberg, Prussia		Consular Agent
Frederiksted, St. Croix Island		Consular Agent	Leipzig, Saxony		Consul
St. Thomas, West Indies		Consul	Lübeck		Consular Agent
	Dominican Republic		Magdeburg, Prussia		Consul
Azua		Consular Agent	Mannheim, Baden		Consul
La Romana		Consular Agent	Markneukirchen, Saxony		Consular Agent
Monte Christi		Consular Agent	Munich, Bavaria		Consul-General
Puerto Plata		Consul	Neustadt-an-der-Hardt, Bavaria		Consular Agent
Samana		Consular Agent	Nuremberg, Bavaria		Consul
Sanchez		Consular Agent	Plauen, Saxony		Consul
San Pedro de Macoris		Consular Agent	Sonneberg, Saxe-Meiningen		Consular Agent
Santo Domingo		Consul-General	Sorau, Prussia		Consular Agent
	Ecuador		Stettin, Prussia		Consul
Bahia de Caraquez		Consular Agent	Stuttgart, Wurttemberg		Consul
Esmeraldas		Consular Agent	Swinemünde, Prussia		Consular Agent
Guayaquil		Consul-General	Tsingtau, China		Consul
	France and Dominions		Wiesbaden, Prussia		Consular Agent
Algiers, Algeria		Consul		Great Britain and Dominions	
Amiens		Consular Agent	Aberdeen, Scotland		Consular Agent
Bastia, Corsica		Consular Agent	Adelaide, Australia		Consular Agent
			Aden, Arabia		Consul
			Annapolis, N. S.		Consular Agent
			Amprior, Ontario		Consular Agent

Residence	Great Britain and Dominions—Cont'd	Rank	Residence	Great Britain and Dominions—Cont'd	Rank
Auckland, New Zealand	Consul-General		Montego Bay, Jamaica	Consular Agent	
Barbados, West Indies	Consul		Montreal, Quebec	Consul-General	
Bay of Islands, (Birchy Cove), Newfoundland	Consular Agent		Nanaimo, B. C.	Consular Agent	
Beebe Junction, Quebec	Consular Agent		Nassau, N. P., Bahamas	Consul	
Belfast, Ireland	Consul		Nelson, B. C.	Consular Agent	
Belize, British Honduras	Consul		Newcastle, N. B.	Consular Agent	
Birmingham, England	Consul		Newcastle, N. S. W., Australia	Consul	
Bloemfontein, Orange Free State	Consular Agent		Newcastle-on-Tyne, England	Consul	
Bombay, India	Consul		Niagara Falls, Ontario	Consul	
Bradford, England	Consul		North Bay, Ontario	Consular Agent	
Bridgewater, N. S.	Consular Agent		Nottingham, England	Consul	
Brighton, Island of Trinidad	Consular Agent		Ottawa, Ontario	Consul	
Brisbane, Queensland	Consular Agent		Ottawa, Ontario	Consul-General	
Bristol, England	Consul		Paramaribo, Dutch Guiana	Consular Agent	
Cabano, Quebec	Consular Agent		Paspebiac, Quebec	Consular Agent	
Calcutta, India	Consul-General		Penang, Straits Settlements	Consular Agent	
Calgary, Alberta, Canada	Consul		Peterborough, Ontario	Consular Agent	
Campbellton, New Brunswick	Consul		Plymouth, England	Consul	
Canso, N. S.	Consular Agent		Port Antonio, Jamaica	Consul	
Cape Town, Cape of Good Hope	Consul-General		Port Elizabeth, Cape of Good Hope	Consul	
Cardiff, Wales	Consul		Port Hawkesbury, N. S.	Consular Agent	
Charlottetown, Prince Edward Island	Consul		Port Maria, Jamaica	Consular Agent	
Christchurch, N. Z.	Consular Agent		Port Morant, Jamaica	Consular Agent	
Cockburn Harbor, W. I.	Consular Agent		Prescott, Ontario	Consul	
Colombo, Ceylon	Consul		Prince Rupert, B. C.	Consul	
Cork (Queenstown) Ireland	Consul		Quebec, Quebec	Consul	
Cornwall, Ontario	Consul		Queenstown (see Cork)		
Cumberland, B. C.	Consular Agent		Rangoon, India	Consul	
Dover, England	Consular Agent		Redditch, England	Consular Agent	
Dublin, Ireland	Consul		Riviere du Loup, Quebec	Consul	
Dundee, Scotland	Consul		Roseau, Dominica, W. I.	Consular Agent	
Dunedin, N. Z.	Consular Agent		St. Ann's Bay, Jamaica	Consular Agent	
Dunfermline, Scotland	Consul		St. George, Bermuda	Consular Agent	
Durban, Natal	Consul		St. Helens, England	Consular Agent	
East London, Cape of Good Hope	Consular Agent		St. John, New Brunswick	Consul	
Edinburgh, Scotland	Consul		St. Johns, Newfoundland	Consul	
Edmonton, Alberta	Consular Agent		St. Lucia, W. I.	Consular Agent	
Edmunston, N. B.	Consular Agent		St. Stephen, New Brunswick	Consul	
Fernie, British Columbia	Consul		St. Vincent, W. I.	Consular Agent	
Fort Erie, Ontario	Consul		Salt Cay, W. I.	Consular Agent	
Fort William and Port Arthur, Ontario	Consul		Sandakan, British North Borneo	Consul	
Fredericton, N. B.	Consular Agent		Sarnia, Ontario	Consul	
Fremantle, W. Australia	Consular Agent		Sault Ste. Marie, Ontario	Consul	
Galt, Ontario	Consular Agent		Sheffield, England	Consul	
Galway, Ireland	Consular Agent		Sherbrooke, Quebec	Consul	
Georgetown, Guiana	Consul		Singapore, Straits Settlements	Consul-General	
Gibraltar, Spain	Consul		Southampton, England	Consul	
Glasgow, Scotland	Consul		Stoke-on-Trent, England	Consul	
Grenada, West Indies	Consular Agent		Summerside, P. E. I.	Consular Agent	
Halifax, Nova Scotia	Consul-General		Swansea, Wales	Consul	
Hamilton, Bermuda	Consul		Sydney, Australia	Consul-General	
Hamilton, Ontario	Consul		Sydney, Nova Scotia	Consul	
Hobart, Tasmania	Consul		Toronto, Ontario	Consul	
Hodeida, Turkey	Consular Agent		Townsville, Queensland	Consular Agent	
Hongkong, China	Consul-General		Trenton, Ontario	Consular Agent	
Huddersfield, England	Consul		Trinidad, West Indies	Consul	
Hull, England	Consul		Troon, Scotland	Consular Agent	
Jersey, Channel Islands	Consular Agent		Turks Island, West Indies	Consul	
Johannesburg, Transvaal	Consul		Vancouver, British Columbia	Consul-General	
Karachi, India	Consul		Victoria, British Columbia	Consul	
Kenora, Ontario	Consular Agent		Victoriaville, Quebec	Consular Agent	
Kidderminster, England	Consular Agent		Wellington, N. Z.	Consular Agent	
Kingston, Jamaica	Consul		West Hartlepool, England	Consular Agent	
Kingston, Ontario	Consul		Weymouth, England	Consular Agent	
Leeds, England	Consul		White Horse, Yukon Territory	Consular Agent	
Leicester, England	Consular Agent		Windsor, Ontario	Consul	
Lethbridge, Alberta	Consular Agent		Winnipeg, Manitoba	Consul-General	
Limerick, Ireland	Consular Agent		Yarmouth, Nova Scotia	Consul	
Liverpool, England	Consul				
Liverpool, N. S.	Consular Agent				
London, England	Consul-General				
Londonderry, Ireland	Consular Agent				
Louisburg, N. S.	Consular Agent				
Lunenburg, N. S.	Consular Agent				
Madras, India	Consul				
Malta, Maltese Islands	Consul				
Manchester, England	Consul				
Matthew Town, Bahamas	Consular Agent				
Melbourne, Australia	Consul				
Mombasa, British East Africa	Consul				
Moncton, New Brunswick	Consul				

Greece

Athens	Consul-General
Kalamata	Consular Agent
Mitylene	Consular Agent
Patras	Consul
Saloniki	Consul

Guatemala

Livingston	Consular Agent
Nuevo Guatemala	Consul
Puerto Barrios	Consular Agent
San José	Consular Agent

Residence	Haiti	Rank	Residence	Mexico—Cont'd	Rank
Aux Cayes		Consular Agent	Topia, Durango		Consular Agent
Cape Haitien		Consul	Torreón, Coahuila		Consular Agent
Gonaïves		Consular Agent	Tuxpam, Vera Cruz		Consular Agent
Jacmel		Consular Agent	Vera Cruz, Vera Cruz		Consul
Jeremie		Consular Agent		Morocco	
Petit Goave		Consular Agent	Casa Blanca		Consular Agent
Port au Prince		Consul	Mogador		Consular Agent
Port de Paix		Consular Agent	Tangier		Consul-General
	Honduras			Netherlands and Dominions	
Amapala		Consular Agent	Amsterdam		Consul
Bonaca		Consular Agent	Batavia, Java		Consul
La Ceiba		Consul	Bonaire, W. I.		Consular Agent
Puerto Cortes		Consul	Curacao, West Indies		Consul
Roatan		Consular Agent	Flushing, Netherlands		Consular Agent
San Juanito		Consular Agent	Luxemburg, Luxemburg		Consular Agent
San Pedro Sula		Consular Agent	Macassar, Celebes		Consular Agent
Tegucigalpa		Consul	Padang, Sumatra		Consular Agent
Tela		Consular Agent	Rotterdam		Consul-General
	Italy		Scheveningen, Netherlands		Consular Agent
Bari		Consular Agent	Soerabaya, Java		Consular Agent
Carrara		Consular Agent		Nicaragua	
Catania		Consul	Bluefields		Consul
Florence		Consul	Corinto		Consul
Genoa		Consul-General	Matagalpa		Consular Agent
Leghorn		Consul	San Juan del Sur		Consular Agent
Milan		Consul		Norway	
Naples		Consul	Bergen		Consul
Palermo		Consul	Christiania		Consul-General
Rome		Consul	Christiansand		Consular Agent
Tripoli, Libya		Consul	Stavanger		Consul
Turin		Consul	Trondhjem		Consular Agent
Venice		Consul		Panama	
	Japan		Boca del Toro		Consular Agent
Dairen, Manchuria		Consul	Colon		Consul
Hakodate		Consular Agent	Panama		Consul-General
Kobe		Consul	Santiago		Consular Agent
Nagasaki		Consul		Paraguay	
Seoul, Chosen		Consul-General	Asuncion		Consul
Tamsui, Taiwan		Consul		Peru	
Yokkaichi		Consular Agent	Tabriz		Consul
Yokohama		Consul-General	Teheran		Consul-General
	Kongo			Peru	
Boma		Consul-General	Callao-Lima		Consul-General
	Liberia		Cerro de Pasco		Consular Agent
Monrovia		Consul-General	Mollendo		Consular Agent
	Mexico		Paiza		Consular Agent
Acapulco, Guerrero		Consul	Salaverry		Consular Agent
Aguascalientes, Aguascalientes		Consul		Portugal and Dominions	
Cananea, Sonora		Consular Agent	Fayal, Azores		Consular Agent
Chihuahua, Chihuahua		Consul	Funchal, Madeira		Consular Agent
Ciudad Juarez, Chihuahua		Consul	Lisbon		Consul-General
Durango, Durango		Consul	Lourenco Marques, East Africa		Consul
Ensenada, Lower California		Consul	Oporto, Portugal		Consular Agent
Frontera, Tabasco		Consul	St. Michael's, Azores		Consul
Guadalajara, Jalisco		Consul	São Vicente, C. V. I.		Consular Agent
Guanajuato, Guanajuato		Consular Agent	Terceira, Azores		Consular Agent
Guaymas, Sonora		Consular Agent		Roumania	
Hermosillo, Sonora		Consul	Bucharest		Consul-General
Los Mochis, Sinaloa		Consular Agent		Russia	
Manzanillo, Colima		Consul	Batum		Consul
Matamoros, Tamaulipas		Consul	Helsingfors, Finland		Consular Agent
Mazatlan, Sinaloa		Consul	Libau		Consular Agent
Mexico, Mexico		Consul-General	Moscow		Consul-General
Monterey, Nuevo Leon		Consul-General	Odessa		Consul
Nogales, Sonora		Consul	Petrograd		Consul
Nuevo Laredo, Tamaulipas		Consul	Reval		Consular Agent
Oaxaca, Oaxaca		Consular Agent	Riga		Consul
Parral, Chihuahua		Consular Agent	Rostoff-on-Don		Consular Agent
Piedras Negras, Coahuila		Consul	Vladivostok, Siberia		Consul
Progreso, Yucatan		Consul	Warsaw		Consul
Puebla, Puebla		Consular Agent		Salvador	
Puerto Mexico, Vera Cruz		Consular Agent	San Salvador		Consul-General
Salina Cruz, Oaxaca		Consul			
Saltillo, Coahuila		Consul			
San Luis Potosi, San Luis Potosi		Consul			
Tampico, Tamaulipas		Consul			
Tapachula, Chiapas		Consul			

Residence		Rank	Residence		Rank
Belgrade.....	Servia	Consul	Vevey.....	Switzerland—Cont'd	Consular Agent
Bangkok.....	Slam	Consul-General	Zurich.....		Consul-General
Alicante.....	Spain and Dominions	Consular Agent	Aleppo, Syria.....	Turkey and Dominions	Consul
Almeria.....		Consular Agent	Alexandretta, Turkey.....		Consular Agent
Barcelona.....		Consul-General	Alexandria, Egypt.....		Consul
Bilbao.....		Consular Agent	Assiut.....		Consular Agent
Cadiz.....		Consular Agent	Bagdad.....		Consul
Coruna.....		Consular Agent	Basra.....		Consular Agent
Denia.....		Consular Agent	Beirut, Syria.....		Consul-General
Grand Canary, C. I.....		Consular Agent	Cairo, Egypt.....		Consul-General
Huelva.....		Consular Agent	Constantinople.....		Consul-General
Jerez de la Frontera.....		Consul	Damascus, Syria.....		Consular Agent
Madrid.....		Consul	Dardanelles.....		Consular Agent
Malaga.....		Consul	Diabekr.....		Consul
Palamos.....		Consular Agent	Haifa, Syria.....		Consular Agent
Palma de Mallorca.....		Consular Agent	Jaffa, Palestine.....		Consular Agent
Seville.....		Consul	Jerusalem, Palestine.....		Consul
Tarragona.....		Consular Agent	Mersina.....		Consul
Teneriffe, Canary Islands.....		Consul	Port Said, Egypt.....		Consular Agent
Valencia.....		Consul	Samsun.....		Consular Agent
Vigo.....		Consular Agent	Smyrna.....		Consul-General
	Sweden		Suez, Egypt.....		Consular Agent
Goteborg.....		Consul	Trebizond.....		Consul
Malmö.....		Consular Agent	Tripoli, Syria.....		Consular Agent
Stockholm.....		Consul-General		Uruguay	Consul
Sundsvall.....		Consular Agent			
	Switzerland			Venezuela	
Basel.....		Consul	Caracas.....		Consular Agent
Bern.....		Consul	Ciudad Bolivar.....		Consular Agent
Geneva.....		Consul	La Guaira.....		Consul
Lucerne.....		Consular Agent	Maracaibo.....		Consul
St. Gall.....		Consul	Puerto Cabello.....		Consul

THE VOLUNTEERS OF AMERICA

This society was inaugurated March 9th, 1896, and chartered November 6th, 1896, under the Membership Act of the State of New York. It has military discipline and methods of work, but the government is democratic, and is vested in the Grand Field Council, composed of the officers of or above the rank of major. This Council elects eleven directors, who are the responsible financial officers, and who act as trustees and custodians of the properties. The commander in chief or general is elected by the members for a term of five years. The officials forming his cabinet are the vice-president, secretary, treasurer, and the regimental officers. In doctrine the Volunteers are in harmony with the evangelical churches in all essential points. Posts have been formed in almost all parts of the United States, and have become auxiliary to the churches.

The chief departments of work of the Volunteers are the evangelical, the helping hand, the prison work, the homes, hospital and sanatorium work. They aim to give temporary assistance in time of need. They seek to reach men and women whose misfortunes or misdeeds have placed them beyond the pale of good society. Homes are established and maintained for them, and every effort is made to bring them back to lives of virtue and sobriety.

The prison work, now carried on in over fifty prisons, is under the direct supervision of Mrs. Ballington Booth. Meetings are held in prison chapels, always in co-operation with the chaplain, and prisoners—on signing certain declarations—may be enrolled in the Volunteer Prison League. On being discharged, the ex-prisoner is provided by the chaplain with a letter of introduction to the Volunteer Headquarters in New York or elsewhere. This letter serves as a pass to a home for discharged prisoners. About 10,000 men have passed through these "Hope Halls." When worthy men prove physically fit, positions are obtained for them, and the Volunteers keep in touch with them for many months and years thereafter. A considerable portion of the income for maintenance of the prison work comes from those who have been its beneficiaries. Organized effort is carried on to assist the families of prisoners, and at Christmas boxes of clothing, groceries and toys are sent

to them. A home is maintained at Gwynedd, Pennsylvania, for the children of prisoners.

Industrial homes are maintained, to tide men over until they can secure paying positions. The Volunteers also provide homes where girls who have no homes in the city can obtain good board and lodging, with the liberty and comfort of home, for a nominal sum. There are also homes for poor children. In summer, fresh air camps are carried on, where mothers of city children are taken for ten days or two weeks. Approximately 40,000 children and their mothers are given outings every summer. Hospital and sanatorium work is a prominent part of the activities of the society. In the New York dispensary alone nearly 42,000 cases are treated in a year. A fully equipped hospital is located at Beekman and Water Streets, New York. Manual training schools, physical culture classes for girls and boys, and sewing schools for girls, are maintained in connection with some of the posts, the garments made by the sewing classes being distributed to the poor. The Volunteers also conduct employment bureaus, reading rooms, wood yards, co-operative stores, and they create additional agencies of relief as emergencies arise, for example, providing ice to the poor in summer, and coal in winter. At Christmas and Thanksgiving thousands of dinners are sent out. During a year about 500,000 lodgings and 500,000 meals are furnished at Volunteer stations and thousands of garments given to the needy. General and Mrs. Ballington Booth are presidents of the society. The headquarters are at 34 West 28th Street, New York.

THE SALVATION ARMY

This is a missionary organization, founded on military principles in England, July 5th, 1865, by General William Booth. The founder died August 20th, 1912, and was succeeded by his son, General William Bramwell Booth. In New York City the national headquarters are at 20 West 14th Street. The society is incorporated in several states. Its work is similar to that carried on by the Volunteers of America.

THE UNITED STATES ARMY

DEPARTMENTS, DIVISIONS AND BRIGADES (Oct. 20, 1916)

The Eastern Department.—Embracing the New England States, New York, New Jersey, Pennsylvania, Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Kentucky, Tennessee, Georgia, Florida, Alabama, Mississippi, the post of Fort Logan H. Roots, Ark., the Coast Defenses of New Orleans and Galveston, the Panama Canal Zone, and the island of Porto Rico, with the islands and keys adjacent thereto; headquarters at Governors Island, N. Y.

Commander, MAJ.-GEN. Leonard Wood.
First Division, headquarters, Governors Island, N. Y.

Commander, MAJ.-GEN. Leonard Wood.
North Atlantic Coast Artillery District.—The Coast Defenses of Portland, Portsmouth, Boston, New Bedford, Narragansett Bay, Long Island Sound, Eastern New York, Southern New York and Sandy Hook; headquarters, Fort Totten, N. Y.

Commander, BRIG.-GEN. Harry F. Hodges.
South Atlantic Coast Artillery District.—The Coast Defenses of the Delaware, Baltimore, Potomac, Chesapeake Bay, Cape Fear, Charleston, Savannah, Tampa, Key West, Pensacola, Mobile, New Orleans, and Galveston. Headquarters, Charleston, S. C.

Commander, COL. Stephen M. Foote, Coast Art.
The Central Department.—Embracing the States of Ohio, Michigan, Indiana, Illinois, Wisconsin, Minnesota, North Dakota, South Dakota, Iowa, Missouri, Kansas, Nebraska, Wyoming (except that part included in the Yellowstone Park), Colorado, and the post of Fort Missoula, Mont.; headquarters at Chicago, Ill.

Commander, MAJ.-GEN. Thomas H. Barry.
Third Cavalry brigade, headquarters, Fort Riley, Kan.:

Commander, _____
Second Division, headquarters, Chicago, Ill.

Fourth brigade, headquarters, Chicago, Ill.
Commander, BRIG.-GEN. Edward H. Plummer.

The Southern Department.—Embracing the States of Texas (except the Coast Defenses of Galveston), Louisiana (except the Coast Defenses of New Orleans), Arkansas (except the post of Fort Logan H. Roots), Oklahoma, New Mexico, and Arizona, headquarters, Fort Sam Houston, Tex.

Commander, MAJ.-GEN. Frederick Funston.
Cavalry Division, headquarters, San Antonio, Tex.

Commander, MAJ.-GEN. Frederick Funston.
First Cavalry Brigade, headquarters, Fort Sam Houston, Tex.:

Commander, BRIG.-GEN. James Parker.
Second Cavalry Brigade, headquarters, Columbus, N. Mex.:

Commander, _____
First Brigade, headquarters, Eagle Pass, Tex.
Commander, BRIG.-GEN. Henry A. Greene.

Second Brigade, headquarters, Laredo, Tex.
Commander, BRIG.-GEN. William A. Mann.

Fifth Brigade, headquarters, El Paso, Tex.
Commander, BRIG.-GEN. George Bell, Jr.

Sixth Brigade, headquarters, Douglas, Ariz.
Commander, BRIG.-GEN. Thomas F. Davis.

Seventh Brigade, headquarters, Douglas, Ariz.
Commander, BRIG.-GEN. Charles G. Morton.

Eighth Brigade, headquarters, Columbus, N. Mex.
Commander, MAJ.-GEN. John J. Pershing.

The Philippine Department.—Embracing all the islands of the Philippine Archipelago. This department is subdivided territorially into the District of Luzon, comprising the islands heretofore included in the Department of Luzon, and the District of Mindanao, comprising the islands heretofore included in the Department of Mindanao, headquarters at Manila, P. I.

Commander, BRIG.-GEN. Hunter Liggett.

The Western Department.—Embracing the States of Washington, Oregon, Idaho, Montana (except the post of Fort Missoula), so much of Wyoming as includes Yellowstone Park, California, Nevada, Utah, and Alaska, headquarters at San Francisco, Cal.

Commander, MAJ.-GEN. J. Franklin Bell.
Third Division, headquarters, San Francisco, Cal.

Commander, MAJ.-GEN. J. Franklin Bell.

Pacific Coast Artillery District: The Coast Defenses of San Diego, Los Angeles, San Francisco, Puget Sound and Columbia, Headquarters, Fort Miley, Cal.

Commander, BRIG.-GEN. Wm. L. Sibert.

The Hawaiian Department.—Embracing the Hawaiian Islands and their dependencies; headquarters, Honolulu, Hawaii.

Commander, BRIG.-GEN. Robt. K. Evans.

First Hawaiian Brigade: Headquarters, Schofield Bks, Hawaii.

Commander, BRIG.-GEN. Frederick S. Strong.

AUTHORIZED STRENGTH OF THE ARMY

	Commissioned officers	Enlisted men
General officers.....	29.....	.....
General Staff Corps.....	38.....	.....
Adjutant-General's Department.....	28.....	.....
Inspector-General's Department.....	19.....	.....
Judge Advocate General's Department.....	17.....	.....
Quartermaster's Department.....	282.....	8,000
Medical Department.....	(a) 1,089.....	(b)
Corps of Engineers.....	302.....	2,198
Ordnance Department.....	96.....	1,241
Signal Corps.....	139.....	3,369
Bureau of Insular Affairs.....	3.....	.....
Fifteen regiments of cavalry.....	877.....	17,357
Six regiments of field artillery.....	381.....	7,881
Coast Artillery Corps.....	819.....	21,423
Thirty regiments of infantry.....	1,890.....	49,876
Porto Rico Regiments of Infantry.....	51.....	1,348
Military Academy.....	7.....	684
Detached officers.....	1,022.....	.....
Additional officers.....	52.....	.....
Recruiting parties, recruit depots, and unassigned recruits.....	.....	11,539
Service school detachments.....	.....	752
United States Military Prison Guards.....	.....	468
With disciplinary organizations.....	.....	101
Mounted orderlies.....	.....	29
Sergeants for duty with National Guard.....	.....	209
Indian scouts.....	.....	75
Total Regular Army.....	7,141.....	126,550
Additional force:		
Philippine scouts.....	182.....	5,733
Grand Total.....	7,323.....	132,283

COMMISSIONED OFFICERS.—Are authorized as follows:

Major-Generals, 11; Brigadier-Generals, 30; Colonels, 245; Lieutenant-Colonels, 230; Majors, 658; Captains, 2,095; 1st Lieutenants, 2,600; 2nd Lieutenants, 1,369; Chaplains, 85.

(a) Includes 363 first lieutenants of the Medical Reserve Corps on active duty, and 60 dental surgeons.

(b) Under the act of Congress approved March 1, 1887 (24 Stat. L. 435), the enlisted men of the Medical Department (Hospital Corps) are not to be counted as part of the strength of the Army. The authorized strength of the Hospital Corps is 6,614 enlisted men.

ACTUAL STRENGTH OF THE ARMY

(April, 1916)

	Officers	Enlisted men
General officers.....	24.....	.....
Staff Corps and Departments.....	1,012.....	2,590
Engineers.....	231.....	1,851
Cavalry.....	794.....	14,258
Field Artillery.....	264.....	5,561
Coast Artillery.....	745.....	18,616
Infantry.....	1,631.....	34,628
West Point detachments.....	.....	618
Indian Scouts.....	.....	24
Casuals and Recruits at depots and en route.....	.....	6,067
Total.....	4,729.....	84,213
Philippine scouts.....	182.....	5,604
Hospital Corps.....	.....	3,972
Quartermaster Corps.....	.....	4,640
Grand Total.....	4,911.....	98,429

GENERAL OFFICERS AND OFFICERS OF STAFF CORPS AND DEPARTMENTS

General Officers

MAJOR-GENERALS

Leonard Wood
J. Franklin Bell
George W. Goethals
Thomas H. Barry

Hugh L. Scott
Frederick Funston
Tasker H. Bliss
John J. Pershing

BRIGADIER GENERALS*

Thomas F. Davis
William A. Mann
Harry F. Hodges
William L. Sibert
Robert K. Evans
Clarence K. Edwards
James Parker
Hunter Liggett
Charles J. Bailey
George Bell, Jr.
Henry A. Greene

Frederick S. Strong
John F. Morrison
Edward H. Plummer
Clarence P. Townsley
Charles G. Morton
John W. Ruckman
Edwin St. J. Greble
Eben Swift
Charles G. Treat
Francis H. French

General Staff Corps

Maj.-Gen. Hugh L. Scott, chief of staff.

MAJOR-GENERALS

Erasmus M. Weaver, chief of coast artillery.
Tasker H. Bliss

COLONELS

Chas. W. Kennedy, infantry.
George T. Bartlett, coast artillery.
P. D. Lochridge, cavalry.
Malvern Hill Barnum, cavalry.
Robt. E. L. Michie, cavalry.
Ernest Hinds, field artillery.
Wm. H. Johnston, infantry.
William F. Martin, infantry.
George B. Duncan, infantry.

LIEUTENANT-COLONELS

Frank W. Coe, coast artillery.
Robert L. Howze, cavalry.

* For detail of service see Division and Departments of the Army.

Munroe McFarland, infantry.
William S. Graves, infantry.
Robert E. Callan, coast artillery.

MAJORS

Andrew Moses, coast artillery.
George A. Nugent, coast artillery.
Palmer E. Pierce, infantry.
Ralph H. Van Deman, infantry.
John McA. Palmer, infantry.
Douglas MacArthur, engineers.
Oliver Edwards, infantry.
Dan T. Moore, 5th field infantry.
Dennis E. Nolan, 30th infantry.
Frank S. Cocheu, infantry.
Walter C. Babcock, cavalry.
Briant H. Wells, infantry.
Francis LeJ. Parker, cavalry.
Monroe C. Kerth, infantry.
Charles E. Kilbourne, coast artillery.
John J. Kingman, engineers.

CAPTAINS

Tenny Ross, infantry.
Harry N. Cootes, cavalry.
William H. Raymond, coast artillery.

Departments at Washington—BRIGADIER-GENERALS

Henry P. McCain, adjutant-general.
Ernest A. Garlington, inspector-general.
Enoch H. Crowder, judge-advocate-general.
Henry G. Sharpe (major-general), quartermaster-general.
Abiel L. Smith, quartermaster corps.
Carroll A. Devol, quartermaster corps.
Wm. C. Gorgas (major-general) surgeon-general.
William M. Black, chief of engineers.
Wm. Crozier, chief of ordnance.
George P. Scriven, chief signal officer.
Frank McIntyre, chief bureau insular affairs.

UNITED STATES MILITARY ACADEMY AT WEST POINT

APPOINTMENTS, HOW MADE.—Each Senator, Congressional District, and Territory—also the District of Columbia, Porto Rico, Alaska, and Hawaii—is entitled to have one cadet at the Academy. There are also forty appointments at large, specially conferred by the President of the United States. The law, however, provides that for six years, from July 1, 1910, whenever any cadet shall have finished three years of his course at the Academy his successor may be admitted.

DATE OF APPOINTMENTS.—Appointments are usually made one year in advance of date of admission, by the Secretary of War, upon the nomination of the Senator or Representative. These nominations may either be made after competitive examination or given direct, at the option of the Representative. The Representative may nominate two legally qualified second candidates, to be designated alternates. The alternates will receive from the War Department a letter of appointment, and will be examined with the regular appointees, and the better qualified will be admitted to the Academy in the event of the failure of the principal to pass the prescribed preliminary examinations.

CANDIDATES.—Appointees to the Military Academy must be between seventeen and twenty-two years of age, free from any infirmity which may render them unfit for military service, and able to pass a careful examination in English grammar, English composition, English literature, algebra through quadratic equations, plane geometry, descriptive geography and the elements of physical geography, especially the geography of the United States, United States history, the outlines of general history. The Secretary of War is authorized to permit not exceeding four Filipinos, to be designated, one for each class, by the Philippine Commission, to receive instruction at the United States Military Academy at West Point; Provided, That the Filipinos undergoing instruction, shall receive the same pay, allowances, and emoluments as are authorized by law for cadets at the Military Academy appointed from the United States, to be paid out of the same appropriations; And provided further, That said Filipinos undergoing instruction on graduation shall be eligible only to commissions in the Philippine Scouts, serving for 8 years, unless sooner discharged.

COURSE OF INSTRUCTION.—The course of instruction, which is quite thorough, requires four years, and is largely mathe-

matical and professional. The principal subjects taught are mathematics, English, French, drawing, drill regulations of all arms of the service, natural and experimental philosophy, chemistry, chemical physics, mineralogy, geology, electricity, history, international, constitutional, and military law, Spanish, civil and military engineering, art and science of war, and ordnance and gunnery. About one-fourth of those appointed usually fail to pass the preliminary examinations, and but little over one-half the remainder are finally graduated. The discipline is very strict—even more so than in the army—and the enforcement of penalties for offences is inflexible rather than severe. Academic duties begin September 1, and continue until June 4. Examinations are held in each December and June, and cadets found proficient in studies and correct in conduct are given the particular standing in their class to which their merits entitle them, while those cadets deficient in either conduct or studies are discharged.

From about the middle of June to the end of August cadets live in camp, engaged only in military duties and receiving practical military instruction. Cadets are allowed but one leave of absence during the four years' course, and this is granted at the expiration of the first two years. The pay of a cadet is \$709.50 per year, and, with proper economy, is sufficient for his support. Uniforms cost about \$160. The number of students at the Academy is usually about five hundred and fifty.

RANK OF GRADUATES.—After graduation the cadet is eligible to the rank of second lieutenant, and is appointed to whatever branch of the service his record entitles him. Those who are highest in class honors are generally appointed to the Engineer Corps.

HISTORY OF WEST POINT.—The Academy was formally opened on July 4, 1802, with ten cadets and five officers as instructors. Its success is said to be due to the administrative ability of Gen. Sylvanus Thayer, who became its superintendent in 1817 and served as such for sixteen years. This officer is known as the Father of West Point. Since the opening of the Academy, including the class of 1911, more than five thousand officers have been graduated. An act of Congress authorizing the expenditure of \$5,800,000 for the reconstruction of the United States Military Academy was passed in June, 1902, and at a later session of Congress \$1,700,000 additional was allowed.

UNITED STATES ARMY POSTS AND FORTS

- Adams, Ft., R. I. (Eastern Dept.)—P. O., R. R. and tel. stn. Newport, R. I., dist. 3 m.
- Andrews, Ft., Mass. (Eastern Dept.)—P. O. same; tel. and R. R. stn. Boston, Mass., dist. 9 m.
- Apache, Ft., Ariz. (Southern Dept.)—P. O. and tel. stn. same; stage daily from Holbrook on S. F. P. R. R., dist. 90 m.
- Armistead, Ft., Md. (subpost of Ft. Howard). (Eastern Dept.)—P. O., tel. and R. R. stn. Baltimore, Md., dist. 8 m.
- Armstrong, Ft., H. T. (subpost of Ft. Ruger). (Hawaiian Dept.)—P. O. and tel. stn. Honolulu, H. T.
- Army and Navy General Hospital, Ark.—P. O., tel. and R. R. stn. Hot Springs, Ark.
- Augusta Arsenal, Ga.—P. O., tel. and R. R. stn. Augusta, Ga., dist. 3 m.; electric railway from Augusta to arsenal.
- Baker, Ft., Cal. (Western Dept.)—P. O. and R. R. stn. Sausalito, Cal., dist. 4 m.; tel. stn. at post; ferry boat from San Francisco to Sausalito, dist. 6 m.
- Banks, Ft., Mass. (Eastern Dept.)—P. O. Winthrop Branch, Boston, Mass.; R. R. stn., Winthrop, Mass., dist. 2 m.; tel. stn. Boston, Mass.
- Barrancas, Ft., Fla. (Eastern Dept.)—P. O. and tel. stn. same; R. R. stn. Pensacola, Fla., dist. 8 m.; electric line to post.
- Barry, Ft., Cal. (Western Dept.)—P. O. same; R. R. stn. Sausalito, Cal., dist. 7 m.; tel. stn. Ft. Baker, Cal.
- Bayard, Ft., General Hospital, N. Mex.—P. O. and tel. stn. same; R. R. stn. Bayard, N. Mex., dist. 2 m.
- Benicia Arsenal, Cal.—P. O., tel. stn. and boat landing, Benicia, Cal.; R. R. stn. Army Point, Cal.
- Benjamin Harrison, Ft., Ind. (Central Dept.)—P. O. Indianapolis, Ind.; interurban trolley from Indianapolis, dist. 10 m.; tel. stn. at post.
- Bliss, Ft., Tex. (Southern Dept.)—P. O. tel. and R. R. stn. same; electric line to El Paso, Tex., for passengers only, 5 m.
- Boise Barracks, Idaho. (Western Dept.)—P. O., tel. and R. R. stn. Boise, Idaho, dist. 2 m.
- Brady, Ft., Mich. (Central Dept.)—P. O., tel. and R. R. stn. Sault Ste. Marie, Mich., dist. 1 m.
- Brownsville, Tex. (Southern Dept.)
- Calexico, Cal. (Western Dept.)
- Camp Ft. Bliss, Tex. (Southern Dept.)—P. O. same.
- Canby, Ft., Wash. (subpost of Ft. Stevens, Oreg.) (Western Dept.)—P. O. Ilwaco, Wash.; tel. and R. R. stn. Ft. Stevens, Oreg., dist. 10 m.
- Carroll, Ft., Md. (subpost of Ft. Howard). (Eastern Dept.)—P. O., tel. and R. R. stn. Baltimore, Md., dist. 8 m.
- Casey, Ft., Wash. (Western Dept.)—P. O. same; tel. stn. Port Townsend, Wash.; R. R. stn. Seattle, Wash., dist. 53 m.
- Caswell, Ft., N. C. (Eastern Dept.)—P. O. and R. R. stn., Southport, N. C.; tel. stn. Wilmington, N. C.; Government and commercial boat to post.
- Cayey, Porto Rico.—See Henry Barracks.
- Clark, Ft., Tex. (Southern Dept.)—P. O. Brackettville, Tex., tel. stn. at post; R. R. stn. Spofford Junction, Tex., dist. 10 m.
- Columbia, Ft., Wash. (Western Dept.)—P. O. same, express office, Chinook, Wash.; tel. and R. R. stn. Ft. Stevens, Oreg., dist. 4 m.; Government steamer to post.
- Columbus Barracks, Columbus, Ohio—P. O. and tel. stn. same; R. R. stn. Columbus, Ohio, dist. 1 m.
- Columbus, N. Mex. (Southern Dept.)
- Constitution, Ft., N. H. (Eastern Dept.)—P. O. New Castle, N. H.; tel. and R. R. stn. Portsmouth, N. H.; stage or steamer from Portsmouth, dist. 3 m.
- Cristobal, C. Z. (Eastern Dept.)—P. O., tel. and R. R. stn. same.
- Crockett, Ft., Tex. (Eastern Dept.)—P. O., tel. and R. R. stn. Galveston, Tex.
- Crook, Ft., Nebr. (Central Dept.)—P. O., tel. and R. R. stn. same.
- Dade, Ft., Fla. (Eastern Dept.)—P. O. same; tel. stn. Palmetto, Fla.; R. R. stn. Tampa, Fla., dist. 35 m.; Government steamer to post.
- D. A. Russell, Ft., Wyo. (Central Dept.)—P. O., tel. and R. R. stn. same.
- Davis, Ft., Alaska. (Western Dept.)—P. O. Nome, Alaska.
- De Russey, Ft., H. T. (subpost of Ft. Ruger). (Hawaiian Dept.)—P. O. and tel. stn. Honolulu, H. T., dist. 4 m.
- Des Moines, Ft., Iowa (Central Dept.)—P. O. and tel. stn. same; R. R. stn. Des Moines, Iowa, dist. 5 m.; city line to post.
- De Soto, Ft., Fla. (subpost of Fort Dade), (Eastern Dept.)—P. O. same; R. R. stn. Tampa, Fla., dist. 34 m.; tel. stn. Palmetto, Fla., daily boat (except Sunday) from Tampa Government steamer to post.
- Douglas, Ariz. (Southern Dept.)—P. O. tel. and R. R. stn. same.
- Douglas, Ft., Utah (Western Dept.)—P. O. Ft. Douglas Stn., Salt Lake City, Utah; tel. stn. at post; R. R. stn. Salt Lake City, Utah, dist. 4 m.; city railway to post.
- Du Pont, Ft., Del. (Eastern Dept.)—P. O., tel. and R. R. stn., Delaware City, Del., dist. 2 m.
- Eagle Pass, Tex. (Southern Dept.)
- El Paso, Tex. (Southern Dept.)
- Empire, Canal Zone (Eastern Dept.)—P. O. and tel. stn. same, 33 miles from Colon.
- Ethan Allen, Ft. Vt. (Eastern Dept.)—P. O., tel. and R. R. stn. same.
- Flagler, Ft., Wash. (Western Dept.)—P. O. same tel. stn. Port Townsend, Wash., dist. 5 m.; R. R. stn. Seattle, Wash., dist. 53 m.
- Foster, Ft., Me. (subpost of Ft. Constitution, N. H.), (Eastern Dept.)—P. O. Kittery, Me.; tel. and R. R. stn. Portsmouth N. H., dist. 6 m.
- Frankford Arsenal, Pa.—P. O. Bridesburg, Philadelphia, Pa.; tel. stn. at post; R. R. stn. Bridesburg, Pa., dist. ¼ m.
- Gaillard, Camp, C. Z. (Eastern Dept.)—P. O. and tel. stn. Culebra, 35 miles from Colon.
- Gaines, Ft., Ala. (subpost of Ft. Morgan), (Eastern Dept.)—P. O. Dauphin Island, Ala.; tel. and R. R. stn. Mobile, Ala., dist. 30 m.; Government steamer to post.
- Galveston, Tex.
- Gatun, C. Z. (Eastern Dept.)—P. O. and tel. stn. same, 9 miles from Colon.
- George Wright, Ft., Wash. (Western Dept.)—P. O. and R. R. stn. Spokane, Wash., dist. 4 m.; tel. stn. at post.
- Getty, Ft., R. I. (subpost of Ft. Greble), (Eastern Dept.)—P. O. Ft. Greble, R. I.; tel. and R. R. stn. Newport, R. I., dist. 5 m.
- Gibbon, Ft., Alaska (Western Dept.)—P. O. Tanana, Alaska; tel. stn. at post.
- Grant, Ft., C. Z. (Eastern Dept.)—P. O. tel. and R. R. stn. Balboa, 3 m.
- Greble, Ft., R. I. (Eastern Dept.)—P. O. same; tel. and R. R. stn. Newport, R. I., dist. 5 m.; electric railway from Saunderstown, R. I., dist. 1½ m.; contract ferry service to post.
- Hamilton, Ft., N. Y. (Eastern Dept.)—P. O. Ft. Hamilton Stn., Brooklyn, N. Y.; tel. stn. Ft. Hamilton, Brooklyn, N. Y.; city railway from Brooklyn, dist. 7 m.
- Hancock, Ft., N. J. (Eastern Dept.)—P. O. same; tel. stn. Sandy Hook, N. J., and R. R. stn. Highlands, N. J., dist. 6 m.; Government railway to post.
- Harlingen, Tex. (Southern Dept.)
- Heath, Ft., Mass. (subpost of Ft. Banks), (Eastern Dept.)—P. O. Winthrop Branch, Boston, Mass.; tel. stn. Beachmont, Mass.; R. R. stn. Highlands, Mass., dist. ¾ m.
- Henry Barracks, Porto Rico (Eastern Dept.)—P. O. and tel. stn. Cayey, P. R.
- H. G. Wright, Ft., N. Y. (Eastern Dept.)—P. O. and R. R. stn. New London, Conn., dist. 8 m.; tel. stn. at post; Government steamer to post.
- Honolulu, Hawaii (Hawaiian Dept.)—P. O. and tel. stn. same.
- Howard, Ft., Md. (Eastern Dept.)—P. O. same; tel. and R. R. stn. Baltimore, Md., dist. 17 m.; Government steamer to post.
- Huachuca, Ft., Ariz. (Southern Dept.)—P. O., tel. and R. R. stn. same.
- Hunt, Ft., Va. (Eastern Dept.)—P. O. and tel. stn. same; electric R. R. stn. Hunter, Va., dist. 1 m., freight sta., Washington, D. C.; steamboat from Washington, D. C., dist. 15 m.
- Jackson Barracks, La. (Eastern Dept.)—P. O., tel. and R. R. stn. New Orleans, La., dist. 6 m.; street cars from New Orleans pass the post.
- Jay, Ft., N. Y. (Eastern Dept.)—P. O. New York, N. Y.; tel. stn. Governors Island New York City; Government steamer to post.
- Jefferson Barracks, Mo.—P. O. tel. and R. R. stn. same.
- Kamehameha, Ft., H. T. (Hawaiian Dept.)—P. O. and tel. stn. Honolulu, H. T.
- Key West Barracks, Fla. (Eastern Dept.)—P. O., tel. and R. R. stn. same.
- Laredo, Tex. (Southern Dept.)

UNITED STATES ARMY POSTS AND FORTS—Cont'd

- Lawton, Ft., Wash. (Western Dept.)—P. O. and tel. stn. Seattle, Wash., dist. 6 m.; R. R. stn. Interbay, Wash., dist. 2 m.
- Leavenworth, Ft., Kans. (Central Dept.)—P. O., tel. and R. R. stn. same.
- Leavenworth, Ft., Army Service Schools, Kans.—P. O., tel. and R. R. stn. Ft. Leavenworth, Kans.
- Levett, Ft., Me. (subpost of Ft. Williams) (Eastern Dept.)—P. O., tel. and R. R. stn. Portland, Me.; dist. 4 m.; government steamer to post.
- Lincoln, Ft., N. Dak. (Central Dept.)—P. O., tel. and R. R. stn. Bismarck, N. Dak., dist. 4 m.
- Liscum, Ft., Alaska (Western Dept.)—P. O. and tel. stn. same; steamer from Port Valdez, dist. 3 m.
- Logan, Ft., Colo.—P. O. tel. and R. R. stn. same.
- Logan H. Roots, Ft., Ark. (Eastern Dept.)—P. O. Argenta, Ark.; tel. and R. R. stn. Little Rock, Ark., dist. 4 m.
- Lyon, Ft., Me. (subpost of Ft. McKinley) (Eastern Dept.)—P. O., tel. and R. R. stn. Portland Me., dist. 4 m.; government steamer to post.
- McDowell, Ft., Cal.—P. O. and tel. stn. Angel Island, Cal.; R. R. stn. San Francisco, Cal., dist. 7 m.; government steamer to post.
- McIntosh, Ft., Tex. (Southern Dept.)—P. O., tel. and R. R. stn. Laredo, Tex., dist. 1 m.
- Mackenzie, Ft., Wyo. (Central Dept.)—P. O., tel. stn. and R. R. stn. Sheridan, Wyo.; dist. 3 m.
- McKinley, Ft., Me. (Eastern Dept.)—P. O., tel. and R. R. stn. Portland, Me.; dist. 5 m.
- McPherson, Ft., Ga. (Eastern Dept.)—P. O. and R. R. stn. same; tel. stn. Atlanta, Ga.; electric line from Atlanta, Ga.; dist. 4 m.
- McRee, Ft., Fla. (subpost of Ft. Barrancas) (Eastern Dept.)—P. O. and tel. stn. Ft. Barrancas, Fla.; R. R. stn. Pensacola, Fla., dist. 10 m.; electric line between Pensacola, Fla., and Ft. Barrancas.
- Madison Barracks, N. Y. (Eastern Dept.)—P. O. and R. R. stn. Sacket Harbor, N. Y.; tel. stn. at post.
- Mansfield, Ft., R. I. (subpost of Ft. H. G. Wright) (Eastern Dept.)—P. O. Watch Hill, R. I.; tel. and R. R. stn. Westerly, R. I., dist. 7 m.
- Mason, Ft., Cal. (Western Dept.)—P. O. and R. R. stn. San Francisco, Cal.; dist. 3 m.; street cars $\frac{1}{4}$ m. from post; tel. stn. at post.
- Meade, Ft., S. Dak. (Central Dept.)—P. O. and tel. stn. same; R. R. stn. Sturgis, S. Dak., dist. 2 m.
- Michie, Ft., N. Y. (subpost of Ft. Terry, N. Y.) (Eastern Dept.)—P. O., tel. and R. R. stn. New London, Conn., dist. 11 m.; government steamer to post.
- Miley, Ft., Cal. (Western Dept.) (subpost of Ft. Winfield Scott)—P. O. and R. R. stn. San Francisco, Cal., dist. 6 m.; tel. stn. at post.
- Missoula, Ft., Mont. (Central Dept.)—P. O. and R. R. stn. (N. P.) Missoula, Mont.; electric street railway to post, dist. 4 m.; tel. stn. at post.
- Monroe, Ft., Va. (Eastern Dept.)—P. O., tel. and R. R. stn. same.
- Morgan, Ft., Ala. (Eastern Dept.)—P. O. and tel. stn. same; R. R. stn. Mobile, Ala.; steamer from Mobile, dist. 30 m.
- Mott, Ft., N. J. (Eastern Dept.)—P. O., tel. and R. R. stn. Salem, N. J., dist. 6 m.
- Moultrie, Ft., S. C. (Eastern Dept.)—P. O. Moultrieville, S. C.; tel. and R. R. stn. Charleston, S. C., dist. 6 m.; government steamer to post.
- Myer, Ft., Va. (Eastern Dept.)—P. O. and tel. stn. same; R. R. stn. Washington, D. C., dist. 4 m.; electric railway to post.
- Naco, Ariz.
- Niagara, Ft., N. Y. (Eastern Dept.)—P. O. Youngstown, N. Y.; R. R. stn. Lewiston, N. Y., dist. 7 m.; electric road to post; tel. stn. at post.
- Nogales, Ariz. (Southern Dept.)
- Oglethorpe, Ft., Ga. (Eastern Dept.)—P. O. Dodge, Ga.; tel. stn. at post; R. R. stn. at post for freight and parties of 50 or more passengers, or for less number under special arrangement; R. R. stn. for other passengers, Chattanooga, Tenn., dist. 11 m. Electric railway Chattanooga to post.
- Omaha, Ft., Nebr., (Central Dept.)—P. O. and R. R. stn. Omaha, Nebr., dist. 5 m.; tel. stn. at post.
- Ontario, Ft., N. Y. (Eastern Dept.)—P. O. tel. and R. R. stn. Oswego, N. Y.
- Otis, Camp, E. S. Canal Zone (Eastern Dept.)—P. O. and tel. stn. Las Cascadas.
- Philip Kearny, Ft. R. I. (subpost of Ft. Greble) (Eastern Dept.)—P. O. Ft. Greble, R. I.; tel. and R. R. stn. Newport, R. I., dist., 7 m.; electric railway from Saunderstown, R. I., dist. 1 m.
- Philippine Islands—All mail for troops in, should be addressed Manila, P. I.
- Pickens, Ft., Fla. (subpost of Ft. Barrancas) (Eastern Dept.)—P. O. and tel. stn. Ft. Barrancas, Fla.; R. R. stn. Pensacola, Fla., dist. 9 m.; electric railway between Pensacola, Fla., and Ft. Barrancas.
- Plattsburg Barracks, N. Y. (Eastern Dept.)—P. O., tel. and R. R. stn. Plattsburg, N. Y.
- Porter, Ft., N. Y. (Eastern Dept.)—P. O., tel. and R. R. stn. Buffalo, N. Y., dist. 3 m.
- Prebble, Ft., Me. (subpost of Ft. Williams) (Eastern Dept.)—P. O., tel. and R. R. stn. Portland, Me., dist. 3 m.
- Presidio of Monterey, Cal. (Western Dept.)—P. O. and tel. stn. same; R. R. stn. Monterey, Cal.; dist. 2 m.
- Presidio of San Francisco, Cal. (Western Dept.)—P. O. Presidio Stn., San Francisco, Cal.; tel. stn. at post; R. R. stn., San Francisco, Cal., dist. 5 m.; city railway to post.
- Presidio of San Francisco, Letterman General Hospital, Cal. Randolph, Ft., C. Z. (Eastern Dept.) on Margarita Island, 5 miles from Cristobal P. O., R. R. and Cable stn. Cristobal.
- Revere, Ft., Mass. (subpost of Ft. Andrews, Mass.) (Eastern Dept.)—P. O. Hull, Mass.; R. R. stn. Stony Beach, Mass., dist. $\frac{1}{4}$ m.; tel. stn. at post; quartermaster steamer from Boston, dist. 9 m.
- Riley, Ft., Kans. (Central Dept.)—P. O., tel. and R. R. stn. same.
- Robinson, Ft., Nebr. (Central Dept.)—P. O., tel. and R. R. stn. same.
- Rock Island Arsenal, Ill.—P. O., tel. and R. R. stn. Rock Island, Ill., dist. 1 m.
- Rodman, Ft., Mass. (Eastern Dept.)—P. O., tel. and R. R. stn. New Bedford, Mass., dist. 4 m.
- Rosecrans, Ft., Cal. (Western Dept.)—P. O., tel. and R. R. stn. San Diego, Cal., dist. 6 m.
- Ruger, Ft., H. T. (Hawaiian Dept.)—P. O. and tel. stn. Honolulu, H. T., dist. 6 m.
- St. Michael, Ft., Alaska (Western Dept.)—P. O. and tel. stn. same.
- St. Phillip, Ft., La. (subpost of Jackson Bks., La.) (Eastern Dept.)—P. O. same; tel. and R. R. stn. Buras, La., dist. 6 m.; government steamer to post.
- Sam Houston, Ft., Tex. (Southern Dept.)—P. O. same; Field Hospital and Ambulance Co. No. 7; tel. and R. R. stn. San Antonio, Tex., dist. 3 m.
- San Diego, Cal. (Western Dept.)
- Sandy Hook Proving Ground, N. J.—P. O. Ft. Hancock, N. J.; tel. stn. Sandy Hook, N. J.; R. R. stn. Highlands, N. J., dist. 6 m.; government railway to post.
- San Jacinto, Ft., Tex. (subpost of Ft. Crockett) (Eastern Dept.)—P. O., tel. and R. R. stn. Galveston, Tex.
- San Juan, Porto Rico (Eastern Dept.)—P. O. and tel. stn. same.
- Schofield Barracks, Hawaii (Hawaiian Dept.)—P. O. and tel. stn. (via Honolulu, Hawaii), same; R. R. from Honolulu to post; dist. 27 m.
- Schuyler, Ft., N. Y. (subpost of Ft. Totten, N. Y.) (Eastern Dept.)—P. O., tel. and R. R. stn. Westchester Stn., New York City, dist. 3 m.; R. R. freight stn. Pier 12, East River, New York City, care of Depot Qm., New York City.
- Screven, Ft., Ga. (Eastern Dept.)—P. O., tel. and R. R. stn. same.
- Shafter, Ft., Hawaii (Hawaiian Dept.)—P. O. and tel. stn. Honolulu, Hawaii, dist. 3 m.
- Sheridan, Ft., Ill. (Central Dept.)—P. O., R. R. and tel. stn. same.
- Sherman, Ft., C. Z. (Eastern Dept.), at Toro Point, P. O., Cable and R. R. stn. Cristobal; government steamer between Toro Point and Cristobal, 3 m.
- Sill, Ft., Okla. (Southern Dept.)—P. O., tel. and R. R. stn. same.
- Slocum, Ft., N. Y.—P. O. same; R. R. stn. New Rochelle, N. Y., dist. 2 m.; tel. stn. at post; R. R. freight stn. Pier 12, East River, New York City, care of Depot Qm., New York City.
- Smallwood, Ft., Md. (subpost of Ft. Howard) (Eastern Dept.)—P. O., tel. and R. R. stn. Baltimore, Md., dist. 11 m.
- Snelling, Ft., Minn. (Central Dept.)—P. O. and tel. stn. same; electric street railway to St. Paul, Minn., dist. 7 m.

UNITED STATES ARMY POSTS AND FORTS—Cont'd

Springfield Armory, Mass.—P. O., tel. and R. R. stn. Springfield, Mass.

Standish, Ft., Mass. (subpost of Ft. Strong) (Eastern Dept.)—P. O., tel. and R. R. stn. Boston, Mass., dist. 7 m.

Stark, Ft., N. H. (subpost of Ft. Constitution) (Eastern Dept.)—P. O., tel. and R. R. stn. Portsmouth, N. H., dist. 3 m.

Stevens, Ft., Oreg. (Western Dept.)—P. O., tel. and R. R. stn. same.

Strong, Ft., Mass. (Eastern Dept.)—P. O., tel. and R. R. stn. Boston, Mass., dist. 5 m.; Government boat to post.

Sumter, Ft., S. C. (subpost of Fort Moultrie) (Eastern Dept.)—P. O., Moultrieville, S. C.; tel. and R. R. stn. Charleston, S. C., dist. 6 m.; Government boat to post.

Terry, Ft., N. Y. (Eastern Dept.)—P. O. same; tel. and R. R. stn. New London, Conn., dist. 13 m.; Government boat to post. Texas City, Tex.

Thomas, Ft., Ky. (Eastern Dept.)—P. O. and tel. stn. Ft. Thomas Station, Newport, Ky.

Totten, Ft., N. Y. (Eastern Dept.)—P. O. and tel. stn. same; R. R. stn. Whitestone, N. Y., dist. 2 m.; R. R. freight stn. Pier 12, East River, New York City, care of Depot Qm., New York City.

Travis, Ft., Tex. (subpost of Ft. Crockett) (Eastern Dept.)—P. O., tel. and R. R. stn. Galveston, Tex.

U. S. Disciplinary Barracks, Ft. Leavenworth, Kans.—P. O., tel. and R. R. stn. Ft. Leavenworth, Kans.

U. S. Disciplinary Barracks, Alcatraz, Cal. (Pacific Branch)—P. O. Alcatraz, Cal.; tel. and R. R. stn. San Francisco, Cal., dist. 4 m.; Government steamer daily to post.

U. S. Disciplinary Barracks, Ft. Jay, N. Y. (Atlantic Branch)—P. O. New York, N. Y.; tel. stn. Governors Island, New York City; Government steamer to post.

Vancouver Barracks, Wash. (Western Dept.)—P. O., tel. and R. R. stn. Vancouver, Wash.

Wadsworth, Ft., N. Y. (Eastern Dept.)—P. O. and tel. stn. Rosebank, N. Y.; R. R. stn. at post.

Walter Reed General Hospital, D. C.—P. O., tel. and R. R. stn. Takoma Park, D. C.; electric line from Washington, D. C., dist. 5 m.

Ward, Ft., Wash. (Western Dept.)—P. O. same; R. R. stn. Seattle, Wash., dist. 11 m.; tel. stn. (via Seattle) at post; Government boat to post.

Warren, Ft., Mass. (Eastern Dept.)—P. O. same; R. R. and tel. stn. Boston, Mass.; steamer from Boston, dist. 7 m.

Washington Barracks, D. C. (Eastern Dept.)—P. O. and R. R. stn. Washington, D. C.; tel. stn. at post.

Washington, Ft., Md. (Eastern Dept.)—P. O. and tel. stn. same; steambot from Washington, D. C., dist. 13 m.

Watertown Arsenal, Mass.—P. O. and tel. stn. Watertown, Mass.; R. R. stn. Faneuil, Mass., dist. 1 m.; electric street cars from Boston, Mass., dist. 6 m.

Watervliet Arsenal, N. Y.—P. O. and tel. stn. (telephone to post) Watervliet, N. Y.; R. R. stn. Troy, N. Y., dist. 1 m.; electric street cars to Albany, N. Y.

Wayne, Ft., Mich. (Central Dept.)—P. O. Detroit, Mich., tel. stn. at post; city railway from Detroit, dist. 4 m.

West Point, N. Y. (U. S. Mil. Acad.)—P. O., tel. and R. R. stn. same.

Wetherill, Ft., R. I. (subpost of Ft. Adams) (Eastern Dept.)—P. O. and tel. stn. Jamestown, R. I.; R. R. stn. Newport, R. I., dist. 2 m.

Whipple Barracks, Ariz. (Southern Dept.)—P. O. same; tel. and R. R. stn. Prescott, Ariz., dist. 1 m.

Whitman, Ft., Wash. (subpost of Ft. Worden) (Western Dept.)—P. O. La Conner, Wash.; tel. and R. R. stn. Mount Vernon, Wash., dist. 12 m.

Wm. H. Seward, Ft., Alaska (Western Dept.)—P. O. and tel. stn. Haines, Alaska.

Williams, Ft., Me. (Eastern Dept.)—P. O. Cape Cottage, Me.; tel. and R. R. stn. Portland, Me., dist. 4 m.

Winfield Scott, Ft., Cal. (Western Dept.)—P. O. and tel. stn. same; R. R. stn., San Francisco, Cal., dist. 7 m.

Wood, Ft., N. Y. (Eastern Dept.)—P. O. and R. R. stn. New York, N. Y., dist. 3 m.; tel. stn. at post.

Worden, Ft., Wash. (Western Dept.)—Tel. stn. same; P. O. Port Townsend, Wash.; R. R. stn. Seattle, Wash., dist. 51 m.; Government boat to post.

Yellowstone, Ft., Wyo.—P. O. Yellowstone Park, Wyo.; tel. stn. Mammoth Hot Springs, Wyo.; R. R. stn. Gardiner, Mont., on N. P. R. R., dist. 5 m.

Yuma, Ariz. (Southern Dept.).

LIST OF MILITARY POSTS AND GARRISONED TOWNS IN PHILIPPINE ISLANDS

Posts	Miles from Manila	Province	Island
Augur Barracks (Jolo).....	788		Jolo
Camp Eldridge (Los Baños)...	34	Laguna...	Luzon
Camp Gregg (Bayambang).....	101	Pangasinan	Luzon
Camp John Hay (Baguio).....	171	Mountain.	Luzon
Camp Keithley.....	618		Mindanao
Camp McGrath (Batangas).....	113	Batangas..	Luzon
Camp Nichols (Maricaban).....	5	Rizal.....	Luzon
Camp Overton.....	597		Mindanao
Camp Stotsenburg (Angeles)...	55	Pampanga..	Luzon
Fort Mills.....	31	Cavite.....	Corregidor
Fort San Pedro (Iloilo).....	403	Iloilo.....	Panay
Fort William McKinley.....	6	Rizal.....	Luzon
Fort Wint.....	69	Zambales..	Grande
Ludlow Barracks (Parang).....	842		Mindanao
Manila.....			Luzon
Cuartel de España.....			
Cuartel de Infantería.....			
Department Hospital.....			
Fort Santiago.....			
Medical Supply Depot.....			
Manila Ordnance Depot.....			
Pettit Barracks (Zamb.).....	690		Mindanao
Regan Barracks (Daraga).....	423	Albay.....	Luzon
Tientsin, China.....	2065		
Warwick Barracks (Cebu).....	450	Cebu.....	Cebu

THE POPE OF ROME

The present Pope, Benedict XV. (Giacomo della Chiesa), was born at Genoa, Italy, November 21, 1854. He became Archbishop of Bologna December 18, 1907; Cardinal, May 25, 1914; was elected Supreme Pontiff, or Pope, to succeed Pius X, September 3, 1914, and was crowned September 6, 1914. There

have been 257 Popes, of whom 105 were Roman, 100 Italian other than Roman, 52 Transalpine, or (with the exception of Sardinia or Sicily) Transmarine. Hadrian IV was the only English Pope (1154-1159).

CELEBRATED EUROPEAN UNIVERSITIES

Country	University	Founded
Austria.....	Vienna.....	1365
Belgium.....	Louvain.....	1426
Bohemia.....	Praque.....	1348
Denmark.....	Copenhagen.....	1476
England.....	Cambridge.....	1257
France.....	Oxford.....	1262
France.....	France (Paris).....	792
".....	Lyons.....	830
".....	Rheims.....	1145
".....	Orleans.....	1305
".....	Anjou.....	1349
Germany.....	Heidelberg.....	1386
".....	Leipzig.....	1409
".....	Jena.....	1547
Holland.....	Leyden.....	1575
".....	Utrecht.....	1634
Ireland.....	Dublin.....	1591
Italy.....	Bologna.....	1116
".....	Padua.....	1228
".....	Rome.....	1245
Poland.....	Cracow.....	700
Portugal.....	Coimbra.....	1279
Scotland.....	St. Andrew's.....	1411
".....	Glasgow.....	1450
".....	Aberdeen.....	1494
".....	Edinburgh.....	1582
Spain.....	Cordova.....	968
".....	Valladolid.....	1346
Switzerland.....	Geneva.....	1368
".....	Basle.....	1460

THE NATIONAL GUARD

State	Headquarters	Officers	Men	State	Headquarters	Officers	Men
Alabama.....	Montgomery.....	146	2,615	New Mexico.....	Santa Fe.....	60	851
Arizona.....	Phoenix.....	53	742	New York.....	Albany.....	1,002	15,607
Arkansas.....	Little Rock.....	105	1,547	North Carolina.....	Raleigh.....	211	2,809
California.....	Sacramento.....	249	3,440	North Dakota.....	Bismarck.....	56	676
Colorado.....	Denver.....	119	1,637	Ohio.....	Columbus.....	487	5,309
Connecticut.....	Hartford.....	195	2,772	Oklahoma.....	Oklahoma City.....	69	1,026
Delaware.....	Wilmington.....	40	450	Oregon.....	Portland.....	104	1,622
Dist. of Columbia.....	Washington.....	129	1,847	Pennsylvania.....	Harrisburg.....	762	10,266
Florida.....	St. Augustine.....	95	1,320	Rhode Island.....	Providence.....	90	1,316
Georgia.....	Atlanta.....	229	2,714	South Carolina.....	Columbia.....	136	1,589
Hawaii.....	Honolulu.....	61	905	South Dakota.....	Watertown.....	67	975
Idaho.....	Boise.....	58	946	Tennessee.....	Nashville.....	107	1,639
Illinois.....	Springfield.....	522	5,550	Texas.....	Austin.....	145	2,091
Indiana.....	Indianapolis.....	132	2,077	Utah.....	Salt Lake City.....	32	566
Iowa.....	Des Moines.....	211	3,092	Vermont.....	St. Albans.....	73	730
Kansas.....	Topeka.....	123	1,812	Virginia.....	Richmond.....	200	2,703
Kentucky.....	Frankfort.....	168	2,329	Washington.....	Seattle.....	86	1,234
Louisiana.....	Baton Rouge.....	68	1,044	West Virginia.....	Charleston.....	117	1,607
Maine.....	Augusta.....	101	1,288	Wisconsin.....	Madison.....	196	3,095
Maryland.....	Annapolis.....	156	1,917	Wyoming.....	Cheyenne.....	34	598
Massachusetts.....	Boston.....	426	5,653				
Michigan.....	Lansing.....	188	2,773				
Minnesota.....	St. Paul.....	227	3,280	Total.....		8,705	120,693
Mississippi.....	Jackson.....	78	1,127				
Missouri.....	Jefferson City.....	227	3,872				
Montana.....	Helena.....	45	663				
Nebraska.....	Lincoln.....	119	1,474				
Nevada.....							
New Hampshire.....	Concord.....	91	1,323				
New Jersey.....	Trenton.....	296	4,176				

* No Organized Militia (mustered out May 20, 1906)

THE PENSION LAW

On May 11th, 1912, a pension act was approved which carried an increase the first year of \$21,185,227 and an average of \$20,000,000 annually for the five years that followed. The old pension law for the last fiscal year carried \$152,000,000. The present pension law, somewhat abbreviated, is as follows:

THE LAW

That any person who served ninety days or more in the military or naval service of the United States during the late Civil War, who has been honorably discharged therefrom, and who has reached the age of sixty-two years or over, shall be placed upon the pension roll and be entitled to receive a pension as follows: In case such person has reached the age of sixty-two years and served ninety days, thirteen dollars per month; six months, thirteen dollars and fifty cents per month; one year, fourteen dollars per month; one and a half years, fourteen dollars and fifty cents per month; two years, fifteen dollars per month; two and a half years, fifteen dollars and fifty cents per month; three years or over, sixteen dollars per month. In case such person has reached the age of sixty-six years and served ninety days, fifteen dollars per month; six months, fifteen dollars and fifty cents per month; one year, sixteen dollars per month; one and a half years, sixteen dollars and fifty cents per month; two years, seventeen dollars per month; two and a half years, eighteen dollars per month; three years or over, nineteen dollars per month. In case such person has reached the age of seventy years and served ninety days, eighteen dollars per month; six months, nineteen dollars per month; one year, twenty dollars per month; one and a half years, twenty-one dollars and fifty cents per month; two years, twenty-three dollars per month; two and a half years, twenty-four dollars per month; three years or over, twenty-five dollars per month. In case such person has reached the age of seventy-five years and served ninety days, twenty-one dollars per month; six months, twenty-two dollars and fifty cents per month; one year, twenty-four dollars per month; one and a half years, twenty-seven dollars per month; two years or over, thirty dollars per month. That any person who served in the military or naval service of the United States during the Civil War and received an honorable discharge, and who was wounded in battle or in line of duty and is now unfit for manual labor by reason thereof, or who from disease or other causes incurred in line of duty resulting in his disability is now unable to perform

manual labor, shall be paid the maximum pension under this Act, to wit, thirty dollars per month, without regard to length of service or age.

That any person who has served sixty days or more in the military or naval service of the United States in the War with Mexico and has been honorably discharged therefrom, shall be entitled to receive a pension of thirty dollars per month.

All of the aforesaid pensions shall commence from the date of filing of the applications in the Bureau of Pensions after the passage and approval of this Act: *Provided*, That pensioners who are sixty-two years of age or over, and who are now receiving pensions under existing laws, or whose claims are pending in the Bureau of Pensions, may, by application to the Commissioner of Pensions, in such form as he may prescribe, receive the benefits of this Act; and nothing herein contained shall prevent any pensioner or person entitled to a pension from prosecuting his claim and receiving a pension under any other general or special Act: *Provided*, That no person shall receive a pension under any other law at the same time or for the same period that he is receiving a pension under the provisions of this Act: *Provided further*, That no person who is now receiving or shall hereafter receive a greater pension, under any other general or special law, than he would be entitled to receive under the provisions herein shall be pensionable under this Act.

SEC. 2. That rank in the service shall not be considered in applications filed hereunder.

SEC. 3. That no pension attorney, claim agent, or other person shall be entitled to receive any compensation for services rendered in presenting any claim to the Bureau of Pensions, or securing any pension, under this Act, except in applications for original pension by persons who have not heretofore received a pension.

SEC. 4. That the benefits of this Act shall include any person who served during the late Civil War, or in the War with Mexico, and who is now or may hereafter become entitled to pension under the Acts of June twenty-seventh, eighteen hundred and ninety, February fifteenth, eighteen hundred and ninety-five, and the joint resolutions of July first, nineteen hundred and two, and June twenty-eight, nineteen hundred and six, or the Acts of January twenty-ninth, eighteen hundred and eighty-seven, March third, eighteen hundred and ninety-one, and February seventeenth, eighteen hundred and ninety-seven.

SEC. 5. (omitted; relates to records).

THE PENSION ROLL

(June 30, 1915)

State	Number	Amount	War of the Revolution (estimate)	\$70,000,000.00
UNITED STATES			War of 1812 (service pension)	45,972,895.76
Alabama	2,949	652,706.23	Indian wars (service pension)	13,315,227.19
Alaska	73	16,243.82	War with Mexico (service pension)	49,618,948.68
Arizona	817	180,791.61	Civil War	4,614,643,267.43
Arkansas	8,040	1,779,647.63	War with Spain and insurrection in Philippine Islands	49,944,441.84
California	26,441	5,852,416.37	Regular establishment	35,472,408.77
Colorado	7,347	1,626,280.65	Unclassified	16,508,447.41
Connecticut	9,132	2,021,195.34	Total disbursements for pensions	4,895,475,637.08
Delaware	2,374	525,498.13		
District of Columbia	8,203	1,815,721.57		
Florida	4,642	1,027,368.89		
Georgia	2,734	605,240.52		
Idaho	2,049	453,561.21		
Illinois	51,542	11,409,082.92		
Indiana	45,613	10,096,919.78		
Iowa	25,397	5,621,416.89		
Kansas	29,562	6,543,877.69		
Kentucky	19,491	4,313,894.54		
Louisiana	4,902	1,085,593.49		
Maine	13,018	2,881,484.94		
Maryland	11,355	2,513,362.00		
Massachusetts	31,143	6,893,418.56		
Michigan	31,302	6,928,648.67		
Minnesota	11,596	2,566,734.55		
Mississippi	3,660	810,081.42		
Missouri	36,031	7,975,940.97		
Montana	2,158	477,610.51		
Nebraska	13,113	2,902,369.85		
Nevada	364	80,586.22		
New Hampshire	5,988	1,325,453.54		
New Jersey	18,813	4,164,685.43		
New Mexico	1,731	383,101.01		
New York	62,303	13,791,017.65		
North Carolina	3,315	733,714.37		
North Dakota	2,675	592,161.08		
Ohio	70,768	15,666,677.11		
Oklahoma	10,404	2,302,825.21		
Oregon	7,119	1,575,650.56		
Pennsylvania	69,011	15,275,745.00		
Rhode Island	4,092	905,645.72		
South Carolina	1,547	342,385.98		
South Dakota	4,922	1,089,390.75		
Tennessee	15,477	3,425,758.39		
Texas	7,670	1,697,584.69		
Utah	937	207,372.41		
Vermont	5,970	1,321,445.32		
Virginia	7,950	1,759,606.55		
Washington	9,075	2,008,748.78		
West Virginia	9,693	2,145,450.02		
Wisconsin	18,053	3,995,768.81		
Wyoming	766	169,610.80		
Total	743,327	164,537,494.15		
INSULAR POSSESSIONS			TROOPS IN THE UNITED STATES WARS	
Canal Zone	1	240.00	Wars	Years
Guam	2	504.00	Revolution	1775-1783
Hawaii	69	15,189.03	Northwest Indians	1790-1795
Philippines	55	12,235.60	With France (naval)	1798-1800
Porto Rico	33	7,383.17	With Tripoli (naval)	1801-1805
Total	159	35,311.80	War of 1812	1812-1815
FOREIGN COUNTRIES			Creek Indians	1813-1814
	4,660	945,220.19	Seminole Indians	1817-1818
Grand Total	748,147	165,518,266.14	Black Hawk Indians	1831-1832
			Creek Indians	1836-1837
			Cherokee troubles	1836-1837
			Florida Indians	1835-1843
			Aroostook troubles	1838-1839
			Mexican	1846-1848
			Apache, Navajo and Utah	1849-1855
			Oregon and Washington Indians	1851-1856
			Florida Indian War	1855-1858
			Civil War	1861-1865
			Spanish War	1898
			Philippine Insurrection	1899-1902

Total Pensions Paid

The amounts that have been paid for pensions to soldiers, sailors, and marines, their widows, minor children, and dependent relatives on account of military and naval service in the several wars and in the regular service since the foundation of the Government to June 30, 1915, are as follows:

* Includes navy.

THE UNITED STATES NAVY

GENERAL BOARD OF THE NAVY

Admiral of the Navy George Dewey, President.
 Rear Admiral Austin M. Knight, President Naval War College.
 Rear Admiral Charles J. Badger (retired).
 Rear Admiral F. F. Fletcher.
 Rear Admiral W. S. Benson, Chief of Naval Operations.
 Captain James H. Oliver, Director of Naval Intelligence.
 Captain Harry S. Knapp.
 Captain Spencer S. Wood.
 Captain Charles F. Hughes.
 Captain W. B. Fletcher.
 Commander H. J. Ziegemeier, Secretary.
 Major General Comdnt. G. Barnett, Commandant of Marine Corps.

SECRETARY'S ADVISORY COUNCIL

F. D. Roosevelt, Asst. Secy. of the Navy.
 Rear Adm. W. S. Benson, Chief of Naval Operations.
 Engr. in Chf. R. S. Griffin, Chief of Bureau of Steam Engineering.
 Rear Adm. J. Strauss, Chief of Bureau of Ordnance.
 Rear Adm. L. C. Palmer, Chief of Bureau of Navigation.
 Surg. Genl. W. C. Braisted, Chief of Bureau of Medicine and Surgery.
 Paym. Genl. S. McGowan, Chief of Bureau of Supplies and Accounts.
 Chf. Constr. D. W. Taylor, Chief of Bureau of Construction and Repair.
 Civ. Engr. F. R. Harris, Chief of Bureau of Yards and Docks.
 Maj. Genl. Comdnt. G. Barnett, Comdnt. of Marine Corps.
 Capt. R. McLean, Judge Advocate General.

NAVAL STATIONS AND COMMANDANTS

Boston, Mass. Captain William R. Rush.
 Cavite, Philippines. Captain Benjamin Tappan.
 Charleston, S. C. Captain B. C. Bryan.
 Guam. Captain R. C. Smith,
 Governor of Island.
 Guantanamo, Cuba. Commander D. W. Knox.
 Hawaii. Captain G. R. Clark.
 Key West, Fla. Commander W. J. Terhune.
 Mare Island, Cal. Captain Frank M. Bennett.
 Narragansett Bay, R. I. Rear Admiral Austin M. Knight.
 New York. Rear Admiral Nathaniel R. Usher.
 New Orleans, La. Captain Marbury Johnston.
 Norfolk, Va. Rear Admiral W. McLean.
 Olongapo, Philippines Captain Benjamin Tappan.
 Pensacola, Fla., Aeronautic
 Station. Lt. Commander H. C. Mustin.
 Philadelphia, Pa. Captain R. L. Russell.
 Portsmouth, N. H. Captain W. L. Howard.
 Puget Sound, Wash. Captain R. E. Coontz.
 Tutuila, Samoa. Commander John M. Poyer,
 Governor of Samoa.
 Washington, D. C. Rear Admiral J. H. Glennon.

FLEETS AND THEIR COMMANDERS

Atlantic Fleet

Admiral H. T. Mayo, Commander in Chief.*
 Wyoming (Flagship).

Battleship Force

Division Five.—Minnesota (Flagship), Michigan, South Carolina, Vermont.
 Division Six.—New York (Flagship), Delaware, Oklahoma, Texas.
 Division Seven.—Florida (Flagship) North Dakota, Utah.
 Division Eight.—Arkansas (Flagship), Arizona, Nevada, Pennsylvania.
 Destroyers and Submarine Flotilla.

Cruiser Force

Rear Admiral William B. Caperton, Commander.
 Memphis (Flagship), Des Moines, Montana, Nebraska, North Carolina, Salem. Gunboats and Transports.

Atlantic Reserve Fleet

Rear Admiral James M. Helm, Commander.
 Alabama (Flagship), Chester, Chicago, Connecticut, Georgia,

Illinois, Kansas, Kearsarge, Kentucky, Louisiana, Maine, Missouri, New Jersey, Ohio, Rhode Island, Virginia, Washington, Wisconsin.

Pacific Fleet

Admiral W. B. Caperton, Commander in Chief.*
 San Diego (Flagship), Albany, Chattanooga, Cleveland, Denver, Raleigh.
 Gunboats, Torpedo and Submarine Flotillas.

Pacific Reserve Fleet

Rear Admiral W. F. Fullam, Commander.
 Colorado (Flagship) Maryland, New Orleans, Oregon, Pittsburgh, Saratoga, South Dakota, West Virginia.

Asiatic Fleet

Admiral A. G. Winterhalter, Commander in Chief.*
 First Division.—Brooklyn (Flagship).
 Cincinnati, Galveston.
 Gunboats, Torpedo and Submarine Flotillas.

Unassigned

Idaho (fitting out), Marblehead (in reserve), Mississippi (fitting out), Montgomery (in reserve), New Mexico (fitting out), Tacoma (in reserve).
 Gunboats, Monitors, Transports, Supply Ships and Yachts.

* According to act of March 4, 1915 a Rear Admiral holds the rank of Admiral while serving as Commander in Chief, and holds the rank of Vice Admiral while serving as second in command.

RELATIVE RANK IN ARMY AND NAVY

Generals rank with Admirals.
 Lieutenant-Generals rank with Vice-Admirals.
 Major-Generals rank with Rear-Admirals.
 Brigadier-Generals rank with Commodores.
 Colonels rank with Captains.
 Lieutenant-Colonels rank with Commanders.
 Majors rank with Lieutenant-Commanders.
 Captains rank with Lieutenants.
 First Lieutenants rank with Lieutenants Junior Grade.
 Second Lieutenants rank with Ensigns.
 Cadets rank with Midshipmen.

NAVY ENROLLMENT

	Enlisted	
	Officers	Men
Navy.	3,780	52,561
Marine Corps.	344	9,968

NAVAL MILITIA 1916

STATE	Enlisted		STATE	Enlisted	
	Officers	Men		Officers	Men
California.	64	785	Missouri.	18	220
Connecticut.	19	306	New Jersey.	30	430
Dist. of Columbia.	12	211	New York.	90	1,341
Florida.	11	78	North Carolina.	49	333
Georgia.	*	*	Ohio.	20	258
Illinois.	41	582	Oregon.	12	168
Indiana.	*	*	Pennsylvania.	15	161
Louisiana.	28	285	Rhode Island.	14	189
Maine.	11	154	South Carolina.	15	207
Maryland.	18	184	Washington.	20	310
Massachusetts.	46	651	Wisconsin.	9	84
Michigan.	37	392			
Minnesota.	27	377	Total.	606	7,706

* Disbanded.

GREATEST WARSHIP IN 1812 AND 1916 COMPARED

	Constitution	Arizona
Length in feet.	175	608
Displacement—tons.	2,200	31,400
Speed—knots.	13.5	21.4
Main battery.	22-32-pounders	12 14-inch rifle
	32-24-pounders	22 5-inch rapid fire
	1-18-pounder	guns
Weight of a single broadside, in pounds.	684	10,000
Annual cost of upkeep \$193,220		\$700,000
Weight of gun—32-pounder.	3,200 lbs.	12-inch, 125,664 lbs.
Weight of projectile.	32 lbs.	870 lbs.
Weight of powder charge.	5 lbs.	450 lbs.
Penetration, 18 ins. wood at 1,000 yds. 15 ins. steel at 10,000 yds.		

LISTS OF VESSELS IN THE UNITED STATES NAVY IN FULL COMMISSION

Displacement	Length	Speed Knots	Horse Power	Batteries (Guns)	Torpedo Tubes	Rig and number of funnels	Contract price hull & machinery	Launched	In com- mission
Battleships, First Line									
Arizona.....	31,400.	608'	0"	121.0	134,000.	12 14" 45 cal. B. L. R.; 22 5" 51 Cal. R. F.; 4 3-pdr. saluting.	21 5" 51 cal. 2 21", subm....	2 cage masts, 1 funnel..	\$7,425,000.. June 19/15.. Oct. 17/16
Arkansas.....	26,000.	562'	0"	21.05.	29,320.	12 12" 50 cal. B. L. R.; 21 5" 51 cal. R. F.; 4 3-pdr. saluting.	2 21", subm....	2 cage masts, 2 funnels..	\$4,675,000.. Jan. 14/11.. Sept. 17/12
Florida.....	21,825.	521'	6"	22.08.	41,810.	10 12" 45 cal. B. L. R.; 16 5" 51 cal. R. F.; 4 3-pdr. saluting.	2 21", subm....	2 cage masts, 2 funnels..	* 6,400,000.. May 12/10.. Sept. 15/11
Nevada.....	27,500.	583'	0"	20.53.	26,500.	10 14" 45 cal. B. L. R.; 21 5" 51 cal. R. F.; 4 3-pdr. saluting.	4 21", subm....	2 cage masts, 1 funnel..	5,895,000.. July 11/14.. Mar. 11/16
New York.....	27,000.	573'	0"	21.00.	28,100.	10 14" 45 cal. B. L. R.; 21 5" 51 cal. R. F.; 4 3-pdr. saluting.	4 21", subm....	2 cage masts, 2 funnels..	* 6,400,000.. Oct. 30/12.. Apr. 15/14
Oklahoma.....	27,500.	583'	0"	20.58.	24,800.	10 14" 45 cal. B. L. R.; 21 5" 51 cal. R. F.; 4 3-pdr. saluting.	4 21", subm....	2 cage masts, 1 funnel..	5,926,000.. Mar. 23/14.. May 3/16
Pennsylvania.....	31,400.	608'	0"	21.05.	31,500.	12 14" 45 cal. B. L. R.; 22 5" 51 cal. R. F.; 4 3-pdr. saluting.	4 21", subm....	2 cage masts, 1 funnel..	7,260,000.. Mar. 16/15.. June 13/16
Texas.....	27,000.	573'		21.05.	28,100.	10 14" 45 cal. B. L. R.; 21 5" 51 cal. R. F.; 4 3-pdr. saluting.	4 21", subm....	2 cage masts, 2 funnels..	5,830,000.. May 18/12.. Mar. 12/14
Utah.....	21,825.	521'	6"	21.04.	28,136.	10 12" 45 cal. B. L. R.; 16 5" 51 cal. R. F.; 4 3-pdr. saluting.	2 21", subm....	2 cage masts, 2 funnels..	3,946,000.. Dec. 23/09.. Aug. 31/11
Wyoming.....	26,000.	562'	0"	21.22.	34,956.	12 12" 50 cal. B. L. R.; 21 5" 51 cal. R. F.; 4 3-pdr. saluting.	2 21", subm....	2 cage masts, 2 funnels..	4,450,000.. May 25/11.. Sept. 25/12
Battleships, Second Line									
Delaware.....	20,000.	518'	9"	21.56.	29,529.	10 12" 45 cal. B. L. R.; 14 5" 50 cal. R. F.; 4 3-pdr. saluting.	2 21", subm....	2 cage masts, 2 funnels..	3,987,000.. Feb. 6/09.. Apr. 4/10
Kansas.....	16,000.	456'	4"	18.09.	19,757.	4 12" 45 cal. B. L. R.; 12 7" 45 cal. B. L. R.; 12 7" 45 cal. B. L. R.; 18 3" 50 cal. R. F.; 4 3-pdr. saluting.	4 21", subm....	2 cage masts, 3 funnels..	4,165,000.. Aug. 12/05.. Apr. 5/07
Michigan.....	16,000.	452'	9"	18.79.	16,500.	8 12" 45 cal. B. L. R.; 12 7" 45 cal. B. L. R.; 12 7" 45 cal. B. L. R.; 18 3" 50 cal. R. F.; 4 3-pdr. saluting.	2 21", subm....	2 cage masts, 2 funnels..	3,585,000.. May 26/08.. Jan. 4/10
Minnesota.....	16,000.	456'	4"	18.85.	20,572.	4 12" 45 cal. B. L. R.; 12 7" 45 cal. B. L. R.; 12 7" 45 cal. B. L. R.; 18 3" 50 cal. R. F.; 4 3-pdr. saluting.	4 21", subm....	2 cage masts, 3 funnels..	4,110,000.. Apr. 8/05.. Mar. 9/07
Missouri.....	12,500.	393'	11"	18.15.	16,277.	4 12" 45 cal. B. L. R.; 12 7" 45 cal. B. L. R.; 12 7" 45 cal. B. L. R.; 18 3" 50 cal. R. F.; 4 3-pdr. saluting.	2 18", subm....	2 cage masts, 3 funnels..	2,885,000.. Dec. 28/01.. Dec. 1/03
New Hampshire.....	16,000.	456'	4"	18.16.	18,104.	4 12" 45 cal. B. L. R.; 12 7" 45 cal. B. L. R.; 12 7" 45 cal. B. L. R.; 18 3" 50 cal. R. F.; 4 3-pdr. saluting.	4 21", subm....	2 cage masts, 3 funnels..	3,748,000.. June 30/06.. Mar. 19/08
Ohio.....	12,500.	393'	10"	17.82.	16,507.	4 12" 45 cal. B. L. R.; 12 7" 45 cal. B. L. R.; 12 7" 45 cal. B. L. R.; 18 3" 50 cal. R. F.; 4 3-pdr. saluting.	2 18", subm....	2 cage masts, 3 funnels..	2,899,000.. May 18/01.. Oct. 4/04
South Carolina.....	16,000.	452'	9"	18.86.	18,357.	8 12" 45 cal. B. L. R.; 12 7" 45 cal. B. L. R.; 12 7" 45 cal. B. L. R.; 18 3" 50 cal. R. F.; 4 3-pdr. saluting.	2 21", subm....	2 cage masts, 2 funnels..	3,540,000.. July 11/08.. Mar. 1/10
Vermont.....	16,000.	455'	10"	18.33.	18,249.	4 12" 45 cal. B. L. R.; 12 7" 45 cal. B. L. R.; 12 7" 45 cal. B. L. R.; 18 3" 50 cal. R. F.; 4 3-pdr. saluting.	4 21", subm....	2 cage masts, 3 funnels..	4,179,000.. Aug. 21/08.. Mar. 4/07
Wisconsin.....	11,552.	373'	10"	17.17.	12,609.	4 13" 35 cal. B. L. R.; 14 6" 40 cal. R. F.; 4 3" 50 cal. B. L. R.; 4 6-pdr. saluting.	.....	2 cage masts, 2 funnels abreast	2,674,950.. Nov. 26/98.. Feb. 4/01
Armored Cruisers									
Montana.....	14,500.	504'	5"	22.26.	28,280.	4 10" 40 cal. B. L. R.; 16 6" 50 cal. B. L. R.; 22 3" 50 cal. R. F.; 4 6-pdr. saluting.	4 21", subm....	1 military mast, 1 cage mast, 4 funnels	3,575,000.. Dec. 15/06.. July 21/08
North Carolina.....	14,500.	504'	5"	21.91.	27,274.	4 10" 40 cal. B. L. R.; 16 6" 50 cal. B. L. R.; 22 3" 50 cal. R. F.; 4 6-pdr. saluting.	4 21", subm....	1 military mast, 1 cage mast, 4 funnels	3,575,000.. Oct. 6/06.. May 7/08

† Estimated.

* Limit of cost.

LISTS OF VESSELS IN THE UNITED STATES NAVY IN FULL COMMISSION—Cont'd

Displacement	Length	Speed Knots	Horse Power	Batteries (Guns)	Armored Cruisers—Cont'd		Torpedo Tubes	Rig and number of funnels	Contract price hull & machinery	Launched	In com- mission
					San Diego	Brooklyn					
13,680	503' 11"	22.20	29,658	4 8" 45 cal. B. L. R.; 14 6" 50 cal. B. L. R.; 18 3" 50 cal. R. F.; 4 3-pdr. saluting.	2 18", subm. 1 military mast, 1 cage mast, 4 funnels	2 18", subm. 1 military mast, 1 cage mast, 4 funnels			\$3,800,000	Apr. 28/04	Aug. 1/07
9,215	402' 7"	21.91	18,770	8 8" 35 cal. B. L. R.; 12 5" 40 cal. R. F.; 4 6-pdr. saluting.	Cruiser, First Class				2,986,000	Oct. 2/95	Dec. 1/96
7,350	413' 1"	22.80	18,509	3 6" 45 cal. R. F.; 8 4" 40 cal. R. F.; 2 6-pdr. saluting.	Cruiser, Second Class				2,725,000	July 26/92	Apr. 23/94
3,430	354' 10"	20.52	7,500	10 5" 50 cal. B. L. R.; 2 3-pdr. R. F.	Cruisers, Third Class				\$1,205,000	Jan. 14/99	May 29/00
3,750	423' 1"	24.33	15,889	2 5" 50 cal. B. L. R.; 6 3" 50 cal. R. F.; 2 21", subm. 4 funnels, 2 masts					1,556,000	May 29/07	Apr. 11/08
3,200	308' 11"	16.65	5,398	10 5" 50 cal. B. L. R.; 8 6-pdr. R. F.					1,039,966	Mar. 7/03	Oct. 11/04
3,200	308' 10"	16.45	4,685	10 5" 50 cal. B. L. R.; 8 6-pdr. R. F.					1,041,650	Sept. 28/01	Nov. 2/03
3,188	306' 1"	19.91	8,491	11 5" 40 cal. B. L. R.; 6 6-pdr. R. F.					\$1,000,000	Nov. 19/92	Jan. 16/94
3,200	308' 9"	16.75	6,202	10 5" 50 cal. B. L. R.; 8 6-pdr. R. F.					1,080,000	June 21/02	May 17/04
3,200	308' 10"	16.65	5,400	10 5" 50 cal. B. L. R.; 8 6-pdr. R. F.					1,065,000	Sept. 20/02	Mar. 5/04
3,200	308' 10"	16.41	5,178	10 5" 50 cal. B. L. R.; 8 6-pdr. R. F.					1,027,000	Mar. 23/03	Feb. 15/05
3,183	305' 10"	21.12	8,159	11 5" 40 cal. R. F.; 6 6-pdr. R. F.					1,100,000	Mar. 31/92	Apr. 17/94
3,750	423' 1"	25.95	22,242	2 5" 50 cal. B. L. R.; 8 6-pdr. R. F.					1,556,000	July 27/07	Aug. 1/08
1,036	305' 3"	29.62	16,000	4 4" 50 cal. R. F.	Destroyers				756,100	Nov. 23/12	Jan. 17/14
420	250' 0"	28.45	8,000	2 3" 50 cal. R. F.					283,000	Aug. 27/01	Nov. 24/02
1,036	305' 3"	29.62	16,000	4 4" 50 cal. R. F.					283,000	Dec. 21/02	Mar. 26/14
420	250' 0"	28.18	8,000	2 3" 50 cal. R. F.					283,000	Mar. 22/02	Nov. 24/02
1,036	305' 3"	29.59	16,000	4 4" 50 cal. R. F.					756,100	Mar. 22/13	Jan. 20/14
1,020	305' 3"	30.14	15,307	4 4" 50 cal. R. F.					781,500	May 20/13	Aug. 9/13
420	250' 0"	28.64	8,000	2 3" 50 cal. R. F.					883,000	Oct. 26/01	Nov. 20/02
1,090	315' 3"	29.63	18,600	4 4" 50 cal. R. F.					831,500	July 8/13	Jan. 23/16
1,020	305' 3"	30.57	16,335	4 4" 50 cal. R. F.					831,500	Aug. 6/13	Sept. 21/13
1,050	305' 3"	30.18	15,280	4 4" 50 cal. R. F.					838,500	Jan. 19/13	Aug. 21/13
420	250' 0"	28.00	8,000	2 3" 50 cal. R. F.					260,000	July 24/00	Oct. 24/02
420	250' 0"	28.10	8,000	2 3" 50 cal. R. F.					260,000	Sept. 26/00	May 19/02
742	293' 10"	30.83	15,524	5 3" 50 cal. R. F.					644,000	Aug. 22/10	Oct. 29/10
1,014	305' 3"	29.14	14,245	4 4" 50 cal. R. F.					770,450	Aug. 15/13	Aug. 9/15
1,090	305' 3"	29.29	17,151	4 4" 50 cal. R. F.					873,500	Aug. 21/13	Aug. 14/15
1,422	393' 10"	29.59	17,600	5 3" 50 cal. R. F.					630,500	Jan. 11/13	June 16/12
1,150	315' 3"	29.57	17,600	4 4" 50 cal. R. F.					825,000	Jan. 20/15	June 16/12
742	293' 10"	30.91	16,554	5 3" 50 cal. R. F.					640,000	May 3/12	Oct. 29/12
742	293' 10"	31.27	12,474	5 3" 50 cal. R. F.					654,500	Apr. 29/12	June 15/12
742	293' 10"	30.66	13,072	5 3" 50 cal. R. F.					665,000	Apr. 29/12	June 23/11
1,020	305' 3"	29.00	16,000	4 4" 50 cal. R. F.					810,000	Aug. 22/14	June 16/14
1,050	305' 3"	29.00	16,000	4 4" 50 cal. R. F.					842,000	Aug. 19/14	Apr. 30/15
1,050	305' 3"	29.55	16,000	4 4" 50 cal. R. F.					842,000	July 20/14	Apr. 22/15
1,026	303' 10"	29.60	12,624	5 3" 50 cal. R. F.					756,100	Feb. 8/13	Dec. 20/13
742	293' 10"	30.60	12,624	5 3" 50 cal. R. F.					637,000	Apr. 29/11	Oct. 11/11
742	293' 10"	32.80	17,393	5 3" 50 cal. R. F.					644,000	Apr. 12/10	Sept. 29/10

§ Limit of cost.

† Purchase price.

‡ Estimated.

* Main engines only.

LISTS OF VESSELS OF THE UNITED STATES NAVY IN COMMISSION IN RESERVE—Cont'd

Displacement	Length	Speed Knots	Horse Power	Batteries (Guns)	Torpedo Tubes	Rig and number of funnels	Contract price hull & machinery	Launched	In com- mission	
Battleships, Second Line—Cont'd										
Connecticut	16,000.	456'	4"	18.78.	20,525.	4 12"	45 cal. B. L. R.; 8 8" 45 cal. B. L. R.; 12 7" 45 cal. B. L. R.; 18 3" 50 cal. R. F.; 4 3-pdr. saluting.	4 21"	subm. 2 cage masts, 3 funnels. * 4,600,000. Sept. 29/04. Sept. 29/06	
Georgia	16,000.	441'	3"	19.26.	25,463.	4 12"	40 cal. B. L. R.; 8 8" 45 cal. B. L. R.; 12 6" 50 cal. B. L. R.; 12 3" 50 cal. R. F.; 4 6-pdr. saluting.	4 21"	subm. 2 cage masts, 3 funnels. 3,590,000. Oct. 11/04. Sept. 24/06	
Maine	12,500.	393' 11"	18.00.	15,841.	4 12"	40 cal. B. L. R.; 16 6" 50 cal. B. L. R.; 6 3" 50 cal. R. F.; 4 3-pdr. saluting.	2 18"	subm. 2 cage masts, 3 funnels. 2,885,000. July 27/01. Dec. 29/02		
Illinois	11,552.	375'	4"	17.45.	12,318.	4 13"	35 cal. B. L. R.; 14 6" 40 cal. R. F.; 4 3" 50 cal. R. F.; 4 6-pdr. saluting.	2 cage masts; 2 funnels, absear	2,595,000. Oct. 4/98. Sept. 16/01	
Kearsarge	11,520.	375'	4"	16.82.	11,954.	4 13"	35 cal. B. L. R.; 4 8" 35 cal. B. L. R.; 18 8" 40 cal. R. F.; 4 6-pdr. saluting.	1 18", above water	2 cage masts, 2 funnels. 2,250,000. Mar. 24/98. Feb. 20/00	
Kentucky	11,520.	375'	4"	16.90.	12,318.	4 13"	35 cal. B. L. R.; 4 8" 35 cal. B. L. R.; 18 8" 40 cal. R. F.; 4 6-pdr. saluting.	2 cage masts, 2 funnels.	2,250,000. Mar. 24/98. May 15/00	
Louisiana	16,000.	456'	4"	18.82.	21,350.	4 12"	45 cal. B. L. R.; 8 8" 45 cal. B. L. R.; 12 7" 45 cal. B. L. R.; 18 3" 50 cal. R. F.; 4 6-pdr. saluting.	4 21"	subm. 2 cage masts, 3 funnels. 3,990,000. Aug. 27/04. June 2/06	
Nebraska	14,948.	441'	3"	19.06.	21,911.	4 12"	40 cal. B. L. R.; 8 8" 45 cal. B. L. R.; 12 6" 50 cal. B. L. R.; 12 3" 50 cal. R. F.; 4 6-pdr. saluting.	4 21"	subm. 2 cage masts, 3 funnels. 3,733,600. Oct. 7/04. July 1/07	
New Jersey	14,948.	441'	3"	19.18.	23,570.	4 12"	40 cal. B. L. R.; 8 8" 45 cal. B. L. R.; 12 6" 50 cal. B. L. R.; 12 3" 50 cal. R. F.; 4 3-pdr. saluting.	4 21"	subm. 2 cage masts, 3 funnels. 3,405,000. Nov. 10/04. May 12/06	
Oregon	10,288.	351'	2"	16.79.	11,111.	4 13"	35 cal. B. L. R.; 8 8" 35 cal. B. L. R.; 12 3" 50 cal. R. F.; 4 6-pdr. saluting.	1 military mast, 1 cage mast, 2 funnels	3,222,810. Oct. 26/93. July 15/96	
Rhode Island	14,948.	441'	3"	19.01.	20,627.	4 12"	40 cal. B. L. R.; 8 8" 45 cal. B. L. R.; 12 6" 50 cal. B. L. R.; 12 3" 50 cal. R. F.; 4 6-pdr. saluting.	4 21"	subm. 2 cage masts, 3 funnels. 3,405,000. May 17/04. Feb. 19/06	
Virginia	14,948.	441'	3"	19.01.	23,468.	4 12"	40 cal. B. L. R.; 8 8" 45 cal. B. L. R.; 12 6" 50 cal. B. L. R.; 12 3" 50 cal. R. F.; 4 6-pdr. saluting.	4 21"	subm. 2 cage masts, 3 funnels. 3,590,000. Apr. 5/04. May 7/06	
Armoured Cruisers										
Colorado	13,680.	504'	0"	22.24.	27,374.	4 8"	45 cal. B. L. R.; 14 6" 50 cal. B. L. R.; 18 3" 50 cal. R. F.; 4 3-pdr. salute.	2 18"	subm. 1 military mast, 1 cage mast, 4 funnels	3,780,000. Apr. 25/03. Jan. 19/05
Maryland	13,680.	503' 11"	22.41.	28,474.	4 8"	45 cal. B. L. R.; 14 6" 50 cal. B. L. R.; 18 3" 50 cal. R. F.; 4 3-pdr. salute.	2 18"	subm. 1 military mast, 1 cage mast, 4 funnels	3,775,000. Sept. 12/03. Apr. 18/05	
Pittsburgh	13,680.	504'	0"	22.44.	29,071.	4 8"	45 cal. B. L. R.; 14 6" 50 cal. B. L. R.; 18 3" 50 cal. R. F.; 4 3-pdr. salute.	2 18"	subm. 1 military mast, 1 cage mast, 4 funnels	3,890,000. Aug. 22/03. Mar. 9/05
South Dakota	14,500.	503' 11"	22.24.	28,843.	4 8"	45 cal. B. L. R.; 14 6" 50 cal. B. L. R.; 18 3" 50 cal. R. F.; 4 3-pdr. salute.	2 18"	subm. 1 military mast, 1 cage mast, 4 funnels	3,750,000. July 21/04. Jan. 27/08	
Washington	14,500.	504'	5"	22.27.	27,463.	4 10"	40 cal. B. L. R.; 16 6" 50 cal. B. L. R.; 22 3" 50 cal. R. F.; 4 3-pdr. salute.	4 21"	subm. 1 military mast, 1 cage mast, 4 funnels	4,035,000. Mar. 18/05. Aug. 7/06
West Virginia	13,680.	503' 11"	22.15.	26,466.	4 8"	45 cal. B. L. R.; 14 6" 50 cal. B. L. R.; 18 3" 50 cal. R. F.; 4 3-pdr. salute.	2 18"	subm. 1 military mast, 1 cage mast, 4 funnels	\$3,885,000. Apr. 18/03. Feb. 23/05	

* Limit of cost.

LISTS OF VESSELS OF THE UNITED STATES NAVY IN COMMISSION IN RESERVE—Cont'd

Displacement	Length	Speed Knots	Horse Power	Batteries (Guns)	Torpedo Tubes	Rig and number of funnels	Contract price hull & machinery	Launched	In com- mission
Cruisers, First Class									
Charleston	9,700	426'	6"	22.04	27,507	14 6" 50 cal. B. L. R.; 18 3" 50 cal. R. F.; 4 3-pdr. saluting R. F.	2,740,000	Jan. 23/04	Oct. 17/05
Milwaukee	9,700	426'	6"	22.22	24,504	14 6" 50 cal. B. L. R.; 18 3" 50 cal. R. F.; 4 3-pdr. saluting R. F.	2,825,000	Sept. 10/04	Dec. 6/06
St. Louis	9,700	426'	6"	22.13	27,484	14 6" 50 cal. B. L. R.; 18 3" 50 cal. R. F.; 4 3-pdr. saluting R. F.	2,740,000	May 6/05	Aug. 18/06
Saratoga	8,150	384'	0"	21.00	17,401	4 8" 45 cal. B. L. R.; 10 5" 50 cal. B. L. R.; 8 3" 50 cal. R. F.; 4 3-pdr. salute.	2,985,000	Dec. 2/91	Aug. 1/93
Cruiser, Second Class									
Chicago	4,500	342'	2"	18.00	9,000	14 5" 40 cal. R. F.; 9 6-pdr. R. F.; added temporarily; 4" 40 cal. R. F.; 2 3-pdr. R. F.	889,000	Dec. 5/85	Apr. 17/89
Cruisers, Third Class									
Chester	3,750	423'	1"	26.52	28,168	2 5" 50 cal. B. L. R.; 6 3" 50 cal. R. F.; 2 21", subm.	1,688,000	June 26/07	Apr. 25/08
Marblehead	2,072	269'	6"	18.44	5,450	8 4" 40 cal. R. F.; 4 3-pdr. R. F.	674,000	Aug. 11/92	Apr. 2/94
Montgomery	2,072	269'	10"	19.06	5,584	4 4" 40 cal. R. F.; 2 3-pdr. R. F.; 2 1-pdr. R. F.	612,500	Dec. 5/91	Jan. 2/08
New Orleans	3,430	354'	5"	20.00	7,500	10 5" 50 cal. B. L. R.; 2 3-pdr. R. F.	1,429,215	Dec. 4/96	Mar. 18/98
Tacoma	3,200	308'	6"	16.58	5,424	10 5" 50 cal. B. L. R.; 8 6-pdr. R. F.	1,041,900	June 2/03	Jan. 30/04
Destroyers									
Hopkins	408	248'	8"	29.02	8,456	2 3" 50 cal. R. F.; 6 6-pdr. R. F.	291,000	Apr. 24/02	Sept. 23/03
Hull	408	248'	8"	28.04	9,119	2 3" 50 cal. R. F.; 6 6-pdr. R. F.	291,000	June 21/02	May 20/03
Macdonough	400	246'	3"	28.03	8,400	7 6-pdr. R. F.	281,000	Dec. 24/00	Sept. 5/03
Perry	420	250'	2"	28.32	7,950	2 3" 50 cal. R. F.; 5 6-pdr. R. F.	285,000	Oct. 27/00	Sept. 4/02
Truxtun	483	259'	6"	29.58	8,300*	2 3" 50 cal. R. F.; 6 6-pdr. R. F.	286,000	Aug. 15/01	Sept. 11/02
Worden	433	259'	6"	29.86	8,608	2 3" 50 cal. R. F.; 6 6-pdr. R. F.	286,000	Aug. 15/01	Dec. 31/02
Farragut	275	213'	6"	30.13	5,600	4 6-pdr. R. F.	227,500	July 16/98	Mar. 22/99
Torpedo Boat									
Monitors									
Amphitrite	3,990	262'	9"	10.50	† 1,600	4 10" 30 cal. B. L. R.; 2 4" 40 cal. R. F.; 2 3-pdr. R. F.	1 military mast, 1 funnel	June 7/83	Apr. 23/95
Monterey	4,084	260'	11"	13.60	5,244	2 12" 35 cal. B. L. R.; 2 10" 30 cal. B. L. R.; 6 6-pdr. R. F.	1 military mast, 1 funnel	Apr. 28/91	Feb. 13/93
LISTS OF VESSELS OF THE UNITED STATES NAVY IN COMMISSION IN ORDINARY									
Destroyers									
Downes	1,072	305'	3"	29.00	† 16,000	4 4" 50 cal. R. F.	2 masts, 4 funnels	Nov. 8/13	Feb. 11/15
Lawrence	400	246'	3"	28.41	† 8,400	7 6-pdr. R. F.	Signal pole, 4 funnels, wireless pole	Nov. 7/00	Apr. 14/03
Perkins	742	293'	10"	29.76	11,668	5 3" 50 cal. R. F.	2 masts, 3 funnels	Apr. 9/10	Nov. 18/10
Tonopah	3,225	255'	1"	13.04	2,004	2 12" 40 cal. B. L. R.; 2 6-pdr. R. F.	1 military mast, 1 funnel	Nov. 24/00	Mar. 5/03

* Main engines only. † Estimated. ‡ Purchase price. § Part of an appropriation of \$3,178,046 for five monitors.

LISTS OF VESSELS OF THE UNITED STATES NAVY IN COMMISSION IN ORDINARY—Con'd

	Displacement	Length	Speed Knots	Horse Power	Batteries (Guns)	Torpedo Tubes	Contract price hull & machinery	Launched	In com- mission
Torpedo Boats									
Bagley.....	175..157'	0"	29.15.	† 3,920.	3 1-pdr. R. F.	3 18" White-head. Long.	161,000.	Sept. 25/00.	Oct. 18/01
Bailey.....	280..205'	0"	30.20.	† 5,000.	4 6-pdr. R. F.	2 18" White-head.	210,000.	Dec. 5/99.	June 10/01
Barney.....	175..157'	0"	29.04.	† 3,920.	3 1-pdr. R. F.	3 18" White-head. Long.	161,000.	July 28/00.	Oct. 21/01
Biddle.....	175..157'	0"	28.57.	† 3,910.	3 1-pdr. R. F.	3 18" White-head. Long.	161,000.	May 18/01.	Oct. 26/01
Blakely.....	196..175'	1"	25.58.	3,000.	3 1-pdr. R. F.	3 18" White-head. Long.	159,400.	Nov. 22/00.	Dec. 27/04
Dahlgren....	146..147'	0"	30.00.	4,200.	4 1-pdr. R. F.	2 18" White-head. Long.	194,000.	May 29/99.	June 16/00
De Long....	196..175'	1"	29.52.	† 3,000.	3 1-pdr. R. F.	3 18" White-head. Long.	159,400.	Nov. 23/00.	Oct. 27/02
Dupont.....	165..175'	0"	28.58.	† 3,000.	4 1-pdr. R. F.	3 18" White-head. Long.	144,000.	Mar. 30/97.	Sept. 23/97
Goldsbrough	250..198'	0"	27.40.	5,850.	4 6-pdr. R. F.	2 18" White-head. Long.	214,500.	July 29/99.	April 9/08
Morris.....	105..138'	3"	24.00.	1,750.	3 1-pdr. R. F.	3 18" White-head. Long.	85,000.	Apr. 13/98.	May 11/98
Shubrick....	209..175'	0"	26.07.	3,000.	3 1-pdr. R. F.	3 18" White-head. Long.	129,750.	Oct. 31/99.	Sept. 21/05
Thornton....	200..175'	0"	24.88.	3,000.	3 1-pdr. R. F.	3 18" White-head. Long.	129,750.	May 15/00.	June 9/02
Tingey.....	165..175'	0"	24.94.	3,000.	3 1-pdr. R. F.	3 18" White-head. Long.	168,000.	Mar. 25/01.	Jan. 7/04

† Estimated. Abbreviations: B. L. R.—Breach-loading rifle; R. F.—Rapid-fire gun; cal.—caliber; Subm.—submerged.

OTHER VESSELS IN COMMISSION

SUBMARINES.—39.

GUNBOATS.—19, ranging in displacement from 190 to 1,486 tons; 2 in reserve.

FUEL SHIPS.—19, ranging in displacement from 4,950 to 19,360 tons; one in reserve.

CONVERTED YACHTS.—5.

TUGS.—47; one in reserve.

TENDERS TO TORPEDO BOATS.—5.

RECEIVING SHIPS.—11; used also as prison ships, or sailing ships for training purposes.

SPECIAL TYPES.—8.

TRANSPORTS.—3.

VESSELS UNDER CONSTRUCTION OR AUTHORIZED

	BATTLESHIPS	Dis- place- ment	Per cent. of comple- tion
July 1, 1916			
California (No. 40).....		32,000.	0.0
Idaho (No. 42).....		32,000.	61.6
Mississippi (No. 41).....		32,000.	47.4
New Mexico.....		32,000.	0.0
Tennessee.....		32,000.	0.0

DESTROYERS

Allen.....	1,075.....	84.3
Davis.....	1,075.....	85.8
Rowan.....	1,126.....	90.0
Shaw.....	1,110.....	36.3
Wilkes.....	1,110.....	76.3
Caldwell.....		0.0
Craven.....		0.0
Gwin.....		8.3
Conner.....		6.5
Stockton.....		6.6
Manley.....		13.8
Fuel ship, Cuyama.....		69.4
Supply ship, Bridge.....	8,500.....	71.5
Transport, Henderson.....	10,000.....	66.5

SUBMARINES

DESTROYER		Per cent. of completion	VESSEL		Per cent. of completion
Mayrant.....	742	July 1, 1916	July 1, 1916	VESSEL	July 1, 1916
SUBMARINE					
E-2.....		L-2.....	99.1	Numbers 60 and 61.....	0.0
		L-5.....	87.3	O-1.....	0.0
TORPEDO BOATS		L-6.....	82.6	O-2.....	0.0
		L-7.....	81.5	O-3.....	8.8
Foote *.....	142	L-8.....	87.5	O-4.....	8.8
Fox *.....	154	L-9.....	99.1	O-5.....	8.8
	Somers *.....	L-10.....	99.1	O-6.....	8.8
		L-11.....	95.7	O-7.....	8.8
GUNBOATS		M-1.....	96.8	O-8.....	8.3
Don Juan de Austria *.....	1,130	Schley.....	20.8	O-9.....	8.3
Isla de Luzon *.....	1,020	N-1.....	59.5	O-10.....	8.3
Newport †.....	1,010	N-2.....	59.5	O-11.....	23.1
	Sandoval *.....	N-3.....	59.5	O-12.....	23.0
TRANSPORTS		N-4.....	66.4	O-13.....	22.1
General Alava.....	1,115	N-5.....	65.6	O-14.....	15.3
Also fuel ships, hospital ship, and converted yachts.		N-6.....	63.6	O-15.....	15.0
* Loaned to Naval Militia.		N-7.....	63.7	O-16.....	14.1

VESSELS OUT OF COMMISSION

BATTLESHIPS

Vessel	Displacement	Vessel	Displacement
Indiana.....	10,288	Massachusetts.....	10,788
Iowa.....	11,346		

CRUISERS, SECOND CLASS

Olympia.....	5,865	Minneapolis.....	7,350
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CRUISER, THIRD CLASS

Boston *.....	3,000
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DESTROYER

Mayrant.....	742
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SUBMARINE

E-2.....	
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TORPEDO BOATS

Foote *.....	142	Rodgers *.....	142
Fox *.....	154	Somers *.....	150

GUNBOATS

Don Juan de Austria *.....	1,130	Princeton.....	1,010
Isla de Luzon *.....	1,020	Ranger †.....	1,261
Newport †.....	1,010	Sandoval *.....	100

TRANSPORTS

General Alava.....	1,115
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Also fuel ships, hospital ship, and converted yachts.

* Loaned to Naval Militia.

† School ship.

THE NAVAL APPROPRIATION LAW

An act, passed by Congress, making appropriations for enlarging the naval service of the United States was approved by President Wilson on August 21, 1916. The appropriations, amounting to \$315,826,843, are the largest in the history of the country. The law provides for a three year building programme of 157 vessels. Sixty-six of these vessels, to be begun as soon as practicable, shall be contracted for or construction shall be started by March 21, 1917. Following are the details of the programme:

INCREASE OF THE NAVY

Vessels	Number authorized for 3 years	to be begun at once	Cost of each exclusive of armor and armament, not to exceed
Battleships, first-class	10	4	\$11,500,000
Battle cruisers	6	4	16,500,000
Scout cruisers	10	4	5,000,000
Torpedo-boat destroyers	50	20	1,200,000
Fleet submarines	9	9	
Coast	58	27	700,000
800 tons displacement		3	1,200,000
Submarine (Neff system)	1		250,000
Fuel ships	3	1	1,500,000
Repair ships	1		
Transports	1		
Hospital ships	1	1	† 2,350,000
Destroyer tenders	2		
Submarine (fleet)	1		
Ammunition ships	2	1	2,350,000
Gunboats	2	1	860,000

The sum of \$139,345,287 was authorized to be available until expended, for the first year's building programme as follows:

Construction and machinery	\$ 59,000,194
Submarines	8,217,000
Submarine (Neff system)	250,000
Submarine torpedo boats	5,282,593
Armor and armament for vessels	47,110,000
Ammunition for vessels	19,485,500
Total	\$139,345,287

* Two fleet submarines, previously authorized, are to be completed at once.

† Entire cost not to exceed \$2,350,000.

Other important appropriations for increasing the efficiency of the Navy are as follows:

AVIATION: For aviation, to be expended under the direction of the Secretary of the Navy for procuring, constructing, and handling aircraft, including rigid dirigibles, and apparatuses, maintenance of aircraft stations and experimental work in development of aviation for naval purposes, \$3,500,000.

Purchase and manufacture of smokeless powder, \$1,800,000.

PROJECTILE PLANT: Toward the erection and equipment of a plant for the manufacture of projectiles, on a site to be selected by the President (to cost when completed not exceeding \$1,411,222), \$705,611, to be available until expended.

ARMOR PLANT: The Secretary of the Navy is authorized and directed to provide, either by the erection or by purchase of a factory, or both, for the manufacture of armor for the vessels of the Navy; said factory or factories to have an annual capacity of not less than 20,000 tons of armor; to be located at a place or places approved by the General Board of the Navy, with especial reference to considerations of safety in time of war; and the sum of \$11,000,000 is hereby appropriated, to be immediately available.

The Secretary of the Navy shall keep accurate and itemized account of the cost per ton of the product of such factory or factories and report the same to Congress in his annual report.

NEW BATTERIES FOR SHIPS OF THE NAVY: For liners for eroded guns, to be available until June thirtieth, nineteen hundred and eighteen, \$100,000.

BATTERIES FOR MERCHANT AUXILIARIES: For batteries for merchant auxiliaries (to cost not exceeding \$3,300,000), to be available until expended, \$1,650,000.

AMMUNITION FOR SHIPS OF THE NAVY: For procuring, producing, preserving, and handling ammunition for issue to ships, \$13,720,000, to be available until expended.

TORPEDOES AND APPLIANCES: For the purchase and manufacture of torpedoes and appliances, to be available until June thirtieth, nineteen hundred and nineteen, \$800,000.

AIR COMPRESSORS FOR DESTROYERS: For the purchase and manufacture of air compressors and equipment for destroyers, \$195,000.

TORPEDO NETS FOR BATTLESHIPS: For the purchase and manufacture of torpedo nets and equipment, \$480,000.

EXPERIMENTS: For experimental work in the development of armor-piercing and torpedo shell and other projectiles, fuses, powders, and high explosives, and for other experimental work in connection with the development of ordnance material for the Navy, \$100,000.

For actual expenses incurred by and in connection with the civilian Naval Consulting Board, \$25,000.

EXPERIMENTAL AND RESEARCH LABORATORY: For laboratory and research work on the subject of gun erosion, torpedo motive power, the gyroscope, submarine guns, protection against submarine, torpedo and mine attack, improvement in submarine attachments, improvement and development in submarine engines, storage batteries and propulsion, aeroplanes and aircraft, improvement in radio installations, and such other necessary work for the benefit of the Government service, including the construction, equipment, and operation of a laboratory and the employment of scientific civilian assistants, to be expended (limit of cost not to exceed \$1,500,000), \$1,000,000.

REPAIRS AND PRESERVATION AT NAVY YARDS AND STATIONS: For repairs and preservation at navy yards, coaling depots, coaling plants, and stations, \$1,100,000. Total public works, \$9,450,875.

Bureau of Navigation	\$1,069,400
Bureau of Maintenance	6,402,465
Bureau of Medicine and Surgery	1,187,728

NEW FEATURES OR CHANGES

Granting Discharges

'Any person who may hereafter enlist in the Navy for the first time, shall, in time of peace, if he so elects, receive an honorable discharge therefrom, without cost to himself, during the month of June or December, respectively, following the completion of one year's service at sea, providing, however, that at the time, he is not under charges, or undergoing punishment or in debt to the Government. Discharges when so granted, shall not entitle the holder, in case of reenlistment, to the benefits of an honorable discharge granted upon completion of a full enlistment.

The services of postmasters of the second, third, and fourth classes may be utilized in procuring the enlistment of recruits for the Navy and the Marine Corps, and for each recruit accepted for enlistment in the Navy or the Marine Corps, the postmaster procuring his enlistment shall receive the sum of \$5.

Pay for Leave of Absence

Any civilian employee of the Navy Department who is a citizen of the United States and employed at any station outside the continental limits of the United States may, after at least two years' continuous, faithful, and satisfactory service abroad, be granted accrued leave of absence, with pay, for each year of service, and if an employee should elect to postpone the taking of any or all of the leave to which he may be entitled in pursuance hereof such leave may be allowed to accumulate for a period of not exceeding four years, the rate of pay for accrued leave to be the rate obtaining at the time the leave is granted.

Commission for Establishing New Naval Stations

The President is authorized to appoint a commission of five officers of the Navy not below the rank of commander to investigate and report to Congress as soon as practicable, as to the necessity, desirability, and advisability of establishing an additional navy yard or naval station, on the Atlantic coast south of Cape Hatteras or on or near the United States coast of the Gulf of Mexico or in the Caribbean Sea and on the Pacific coast of the United States. If such navy yards or naval stations be recommended, said report shall designate the most suitable

sites and the estimated costs thereof, together with a detailed statement of the reasons for such designation and the nature and scope of the activities for naval purposes of such yards or stations. The commission shall take into consideration all strategical and other military considerations as well as all industrial elements necessary for the economical and successful operation of such yards or stations, including local conditions as to labor and material. Said report shall also contain an estimated cost of the necessary buildings, shops, piers, sea walls, and equipment of said yards or stations together with the estimated annual cost of maintenance thereof.

This commission shall also investigate and report as to the advisability of establishing submarine and aviation bases on the Atlantic, Gulf of Mexico, and Pacific coasts and other possessions of the United States, and as to the cost and location thereof; also of abolishing any existing navy yard or naval station, and if such action is recommended, to report fully the reasons therefor and the advantages to be obtained thereby.

Naval Academy Appointments

Hereafter in addition to the appointment of midshipmen to the United States Naval Academy, as now prescribed by law, the President is allowed fifteen appointments annually instead of ten as now prescribed by law, and the Secretary of the Navy is allowed twenty-five, instead of fifteen. The latter shall be appointed from the enlisted men of the Navy who are citizens of the United States, and not more than twenty years of age on the date of entrance to the Naval Academy, who shall have served not less than one year as enlisted men on the date of entrance; and who have passed the mental and physical examinations required by law. The Secretary of the Navy is also authorized to permit, not exceeding four Filipinos, to be designated by the Governor General of the Philippine Islands, to receive instruction at the Naval Academy at Annapolis. These Filipinos shall receive the same pay and shall be subject to the same rules as the American midshipmen, but they shall not be entitled to appointment to any commissioned office in the United States Navy by reason of their graduation from the Naval Academy.

Commissioned Personnel

Hereafter the total number of commissioned officers of the active list, exclusive of commissioned warrant officers, shall be distributed in the proportion of one of the grade of rear admiral to four in the grade of captain, to seven in the grade of commander, to fourteen in the grade of lieutenant commander, to thirty-two and one-half in the grade of lieutenant, to forty-one and one-half in the grades of lieutenant (junior grade) and ensign, inclusive. Lieutenants (junior grade) shall have had not less than three years' service in that grade before being eligible for promotion to the grade of lieutenant.

Warrant Officers

Hereafter chief boatswains, chief gunners, chief machinists, chief carpenters, chief sail makers, chief pharmacists, and chief pay clerks, on the active list with creditable records, shall, after six years from date of commission, receive the pay and allowances that are allowed a lieutenant (junior grade), United States Navy, and after twelve years, that of a lieutenant. Warrant officers shall be allowed such leave of absence, with full pay, as is allowed other officers of the United States Navy.

Promotion and Retirement

All promotions to the grades of commander, captain, and rear admiral of the line of the Navy, shall be by selection only from the next lower respective grade upon the recommendation of a board of naval officers.

This board shall consist of nine rear admirals on the active list of the line of the Navy not restricted by law to the performance of shore duty only, and shall be appointed by the Secretary of the Navy.

On and after June thirtieth, nineteen hundred and twenty, no captain, commander, or lieutenant commander shall be promoted unless he has had not less than two years' actual sea service on seagoing ships in the grade in which serving or who is more than fifty-six, fifty, or forty-five years of age, respectively. The qualification of sea service shall not apply to officers restricted to the performance of engineering duty only. Captains, commanders, and lieutenant commanders who become ineligible for promotion on account of age shall be retired

on a percentage of pay equal to two and one-half per cent. of their shore-duty pay for each year of service. The total retired pay shall not exceed seventy-five per cent. of the shore-duty pay they were entitled to receive while on the active list. Hereafter the age for retirement of all officers of the Navy shall be sixty-four years instead of sixty-two years as now prescribed by law except as stated before. All commissioned officers of the active list of the Navy shall receive the same pay and allowances according to rank and length of service.

Naval Flying Corps

The Naval Flying Corps shall be composed of one hundred and fifty officers and three hundred and fifty enlisted men, commissioned, and distributed in the various grades of the Navy and Marine Corps.

Officers commissioned for aeronautical duty only shall be eligible for advancement to the higher grades, not above captain in the Navy or colonel in the Marine Corps, without restriction as to sea duty. Such officer must serve at least three years in any grade before being eligible to promotion to the next higher grade. The Secretary of the Navy is authorized to appoint annually for a period of four years, from enlisted men of the naval service, or from citizens in civil life, not to exceed thirty student flyers for instruction and training in aeronautics who shall receive the same pay and allowances as midshipmen at the Naval Academy. Persons so appointed must be not less than seventeen or more than twenty-one years of age, and shall have qualified by examination prescribed by the Secretary of the Navy. In the event of the death of an officer or enlisted man or student flyer of the Naval Flying Corps from wounds or disease, the result of an aviation accident, received while engaged in actual flying in or in handling aircraft, the gratuity to be paid shall be an amount equal to one year's pay, and the amount of pension allowed shall be double that given if injured or killed while not on aviation duty.

NAVAL RESERVE FORCE

A Naval Reserve Force is established, under the Department of the Navy, to consist of six classes, designated as follows:

- First. The Fleet Naval Reserve.
- Second. The Naval Reserve.
- Third. The Naval Auxiliary Reserve.
- Fourth. The Naval Coast Defense Reserve.
- Fifth. The Volunteer Naval Reserve.
- Sixth. Naval Reserve Flying Corps.

The Naval Reserve Force shall be composed of citizens who, by enrolling or by transfer thereto, obligate themselves to serve in the Navy in time of war or during the existence of a national emergency. Members of the Naval Reserve Force may be ordered into active service in the Navy by the President in time of war or when, in his opinion, a national emergency exists. Members appointed to commissioned grades shall be commissioned by the President alone, and members of such force appointed to warrant grades shall be warranted by the Secretary of the Navy. Officers so warranted or commissioned shall not be deprived of the retainer pay, allowances, or gratuities to which they would otherwise be entitled. Officers shall rank with but after officers of corresponding rank in the Navy.

Enrollment and reenrollment shall be for terms of four years, but members shall in time of peace, when no national emergency exists, be discharged upon their own request upon reimbursing the Government for any clothing gratuity that may have been furnished them during their current enrollment. Persons enrolling shall be required to take the oath of allegiance to the United States. When first enrolled, members, except those in the Fleet Naval Reserve, shall be given a provisional grade, in accordance with their qualifications determined by examination. They may thereafter, upon application, be assigned to active service in the Navy for such periods of instruction and training as may enable them to qualify for and be confirmed in such grade, rank or rating. No member shall be confirmed in his provisional grade until he shall have performed the minimum amount of active service required for the class in which he is enrolled, nor until he has duly qualified by examination. Members shall be issued a distinctive badge or button which may be worn with civilian dress, and whoever, not being a member of the Naval Reserve Force of the United States and not entitled under the law to wear the same, willfully wears or uses the badge or button or who uses or wears the same to obtain aid or assistance thereby, shall be punished by a fine of not more

than \$20 or by imprisonment for not more than thirty days or by both such fine and imprisonment.

Fleet Naval Reserve

All former officers of the United States naval service, including midshipmen, who have left that service under honorable conditions, and those citizens who have been honorably discharged from the naval service after not less than one four-year term of enlistment or after a term of enlistment during minority, and who shall have enrolled in the Naval Reserve Force shall be eligible for membership in the Fleet Naval Reserve.

Men enrolled in this class with less than eight years' naval service shall be paid at the rate of \$50 per annum; those with eight years and less than twelve years shall be paid at the rate of \$72 per annum; and those with twelve or more years' naval service shall be paid at the rate of \$100 per annum, such pay to be considered as retainer pay for the obligation on the part of such members to serve in the Navy in time of war or national emergency.

Naval Reserve

Members of the Naval Reserve Force who have been or may be engaged in the seagoing profession, and who have enrolled for general service, shall be eligible for membership in the Naval Reserve. No person shall be first enrolled in this class who is less than eighteen or more than thirty-five years of age, nor unless he furnishes satisfactory evidence as to his ability and character; nor shall any person be appointed an officer in this class unless he shall have had not less than two years' experience as an officer on board of lake or ocean going vessels. The minimum active service required of members to qualify for confirmation in their rank or rating in this class shall be three months. The minimum active service required for maintaining the efficiency of a member of this class is three months during each term of enrollment. This active service may be in one period or in periods of not less than three weeks each year. The annual retainer pay of members in this class after confirmation in rank or rating shall be two months' base pay of the corresponding rank or rating in the Navy.

Naval Auxiliary Reserve

Members of the Naval Reserve Force of the seagoing profession who shall have been or may be employed on American vessels of the merchant marine of suitable type for use as naval auxiliaries and which shall have been listed as such by the Navy Department for use in war, shall be eligible for membership in the Naval Auxiliary Reserve. In time of war or during the existence of a national emergency, persons in this class shall be required to serve only in vessels of the merchant ship type, except in cases of emergency, to be determined by the senior officer present, when said officer may, in his discretion, detail them for temporary duty elsewhere as the exigencies of the service may require.

Officers shall exercise military command only on board the ships to which they are attached and in the naval auxiliary service. The annual retainer pay of members in this class after confirmation in rank or rating shall be for officers, one month's base pay of the corresponding rank in the Navy, and for men, two months' base pay of the corresponding rating in the Navy.

Naval Coast Defense Reserve

Members of the Naval Reserve Force who may be capable of performing special useful service in the Navy or in connection with the Navy in defense of the coast, shall be eligible for membership in the Naval Coast Defense Reserve. Persons may enroll in this class for service in connection with the naval defense of the coast, such as service with coast-defense vessels, torpedo craft, mining vessels, patrol vessels or as radio operators, in various ranks or ratings corresponding to those of the Navy for which they shall have qualified under regulations prescribed by the Secretary of the Navy. He may permit the enrollment in this class of owners and operators of yachts and motor power boats suitable for naval purposes in the naval defense of the coast; and is authorized to enter into contract with the owners of such boats to take over the same in time of war or national emergency upon payment of a reasonable indemnity.

The amount of action service required and the annual retainer shall be the same as the Naval Reserve.

Volunteer Naval Reserve

This class shall be composed of those members of the Naval Reserve Force who are eligible for membership in any of the others and who obligate themselves to serve in the Navy in any one of these classes without retainer pay and uniform gratuity in time of peace.

Naval Reserve Flying Corps

This class shall be composed of officers and student flyers who have been transferred from the Naval Flying Corps and of enlisted men who shall have been so transferred under the same conditions as those provided by law for enlisted men of the Navy transferred to the Fleet Naval Reserve. Members of the Naval Reserve Force, skilled in the flying of aircraft or in their design or building, shall be eligible. The amount of active service required and the annual retainer shall be the same as the Naval Reserve.

MARINE CORPS RESERVE

A United States Marine Corps Reserve, to be a constituent part of the Marine Corps, and in addition to the authorized strength thereof, is hereby established under the same provisions as those providing for the Naval Reserve Force.

NAVAL MILITIA AND NATIONAL NAVAL VOLUNTEERS

The Naval Militia shall consist of the regularly enlisted militia between the ages of eighteen and forty-five years, organized as prescribed for the Naval Militia by law, and commissioned officers between the ages of twenty-one and sixty-two years (naval branch), and twenty-one and sixty-four years (Marine Corps branch). The period of enlistment in the Naval Militia shall be three years. An enlisted man who has served honorably for the full term of his enlistment may reenlist for a term of one, two, or three years, as he may elect.

In case of any emergency, requiring the use of naval forces, in addition to the Regular Navy, the President is authorized to enroll such number of the officers and men of the various branches of the Naval Militia as he may decide is necessary into the National Naval Volunteers, a force created for such purpose.

All persons so enrolled shall be held to service during the continuance of any emergency and during the period of any existing or thereafter ensuing war, unless sooner relieved by order of the President or until reaching the age of sixty-two years for those in the naval branch and the age of sixty-four years for those in the Marine Corps branch, upon attaining which ages such persons, respectively, shall be relieved from such enrollment. During the continuance of any such emergency or war any enrolled person who shall fail to obey the call to service of the President may be arrested and compelled to serve, and, in addition thereto, may be tried by court-martial as a deserter and punished as such in such manner as said court-martial may lawfully direct. Any person so enrolled may tender his resignation to, or request his discharge from, the President, who may, in his discretion, accept such resignation or grant such discharge and disenroll such person. No person shall be held against his will to such enrollment for a longer continuous period than three years, except during the pendency or duration of the emergency or of war.

Each commissioned, warrant officer and enlisted man on the active list of the Naval Militia shall receive compensation for his services, referred to hereinafter as retainer pay, except during periods of service for which he may become lawfully entitled to the same pay as an officer of corresponding grade of the United States Navy or Marine Corps, at the following rates per annum, namely:

To officers of or above the naval rank or equivalent rank of lieutenant, \$500;

To officers of the naval rank or equivalent rank of lieutenant (junior grade), \$240;

To officers of the naval rank or equivalent rank of ensign, \$200;

To warrant officers, \$120;

To enlisted men, pay not to exceed \$120.

Whenever a member of the Naval Militia who is employed under a department of the Government of the United States attends drills, cruises, or other ordered duty of the Naval Militia, he shall receive the amount of the salary or wages he would have earned when so employed, in addition to the amount

provided for by law as a member of the said Naval Militia. Such attendance shall not affect his efficiency rating in said department, nor shall he suffer demotion or loss of position during or at the termination of any naval or military service when ordered upon special or active duty of any kind.

COAST GUARD

Whenever, in time of war, the Coast Guard operates as a part of the Navy in accordance with law, the personnel of that service shall be subject to the laws prescribed for the government of the Navy.

LIGHTHOUSE SERVICE

The President is hereby authorized, whenever in his judgment a sufficient national emergency exists, to transfer to the service and jurisdiction of the Navy Department, or of the War Department, such vessels, equipment, stations, and personnel of the Lighthouse Service as he may deem to the best interest of the country, and after such transfer all expenses connected therewith shall be defrayed out of the appropriations for the department to which transfer is made.

REGULATING COMMERCE

In time of war or threatened war preference and precedence shall, upon demand of the President of the United States, be given over all other traffic for the transportation of troops and material of war, and carriers shall adopt every means within their control to facilitate and expedite the military traffic. And in time of peace shipments consigned to agents of the United States for its use shall be delivered by the carriers as promptly as possible and without regard to any embargo that may have been declared, and no such embargo shall apply to shipments so consigned.

MARINE CORPS INSTRUCTION CAMPS

The Secretary of the Navy is authorized to establish and maintain at such places as he may designate, Marine Corps training camps for the instruction of citizens of the United States who make application and are designated for such training; no camps to be in existence for a period longer than six weeks

in each fiscal year, except in time of actual or threatened war; to use Marine Corps and such other Government property as he may deem necessary for the military training of citizens while in attendance at camps. The Quartermaster's Department, United States Marine Corps, is authorized to sell articles of uniform clothing as may be prescribed at cost price to the volunteer citizens. These citizens shall be required to furnish at their own expense transportation and subsistence to and from these camps, and subsistence while undergoing training therein.

COURT OF ARBITRATION

The President is authorized and requested to invite, at an appropriate time, not later than the close of the war in Europe, all the great Governments of the world to send representatives to a conference which shall be charged with the duty of formulating a plan for a court of arbitration or other tribunal, to which disputed questions between nations shall be referred for adjudication and peaceful settlement, and to consider the question of disarmament and submit their recommendation to their respective Governments for approval. The President is authorized to appoint nine citizens of the United States, who, in his judgment, shall be qualified for such duty to be representatives of the United States in such a conference. The President shall fix the compensation of said representatives and such secretaries and other employees as may be needed. Two hundred thousand dollars, or so much thereof as may be necessary, is hereby appropriated and set aside and placed at the disposal of the President to carry into effect the provisions of this paragraph.

If at any time before the construction authorized by this Act shall have been contracted for there shall have been established, with the coöperation of the United States, an international tribunal competent to secure peaceful determinations of all international disputes, and which shall render unnecessary the maintenance of competitive armaments, then and in that case such naval expenditures as may be inconsistent with the engagements made in the establishment of such tribunal may be suspended, when so ordered by the President of the United States.

THE ARMY REORGANIZATION LAW

This law, approved June 3, 1916, provides for a more effectual national defense.

The most important provisions of the law are as follows:

COMPOSITION OF THE REGULAR ARMY

The Regular Army of the United States shall consist of sixty-four regiments of Infantry, twenty regiments of Cavalry, twenty-one regiments of Field Artillery, a Coast Artillery Corps, a General Staff Corps, an Adjutant General's Department, an Inspector General's Department, a Judge Advocate General's Department, a Quartermaster Corps, a Medical Department, a Corps of Engineers, an Ordnance Department, a Signal Corps, the officers of the Bureau of Insular Affairs, the Militia Bureau, the detached officers, the detached noncommissioned officers, the chaplains, and the Regular Army Reserve, the officers and enlisted men on the retired list, the additional officers, the professors, the Corps of Cadets, the general Army service detachment, and detachments of Cavalry, Field Artillery, and Engineers, and the band of the United States Military Academy; the post noncommissioned staff officers, the recruiting parties, and unassigned recruits, the service school detachments, the disciplinary guards the disciplinary organizations and the Indian Scouts. Hereafter the enlisted personnel of the Regular Army shall never be below the minimum strength. The total enlisted force, excluding the Philippine Scouts, and the enlisted men of the Quartermaster Corps, of the Medical Department, and of the Signal Corps, and the unassigned recruits, shall not at any one time, except in the event of actual or threatened war or similar emergency in which the public safety demands it, exceed one hundred and seventy-five thousand men. The unassigned recruits shall at no time, except in time of war, exceed by more than seven per cent., the total authorized enlisted strength.

The number of general officers of the line now authorized by law is increased by four major generals and nineteen brigadier generals. Hereafter in time of peace major generals of the line shall be appointed from officers of the grade of brigadier general of the line, and brigadier generals of the line shall be appointed

from officers of the grade of colonel of the line of the Regular Army.

THE GENERAL STAFF CORPS.—The General Staff Corps shall consist of one Chief of Staff, detailed in time of peace from major generals of the line; two Assistants to the Chief of Staff, who shall be general officers of the line, one of whom, not above the grade of brigadier general, shall be the president of the Army War College; ten colonels; ten lieutenant colonels; fifteen majors; and seventeen captains, to be detailed from corresponding grades in the Army. All officers detailed in the General Staff Corps shall be detailed therein for periods of four years, unless sooner relieved. While serving in the General Staff Corps, officers may be temporarily assigned to duty with any branch of the Army.

All officers detailed in said corps shall be exclusively employed in the study of military problems, the preparation of plans for the national defense and the utilization of the military forces in time of war, in investigating and reporting upon the efficiency and state of preparedness of such forces for service in peace or war, or on appropriate general staff duties in connection with troops, including the National Guard, or as military attachés in foreign countries, or on other duties, not of an administrative nature, on which they can be lawfully and properly employed. No officer shall be detailed as a member of the General Staff Corps, other than the Chief of Staff and the general officers herein provided for as assistants to the Chief of Staff, except upon the recommendation of a board of five officers not below the rank of colonel, who shall be selected by the President or the Secretary of War, and neither the Chief of Staff nor more than two other members of the General Staff Corps, nor any officer not a member of said corps, shall be detailed as a member thereof. The War College shall remain fully subject to the supervising, coordinating, and informing powers conferred by law upon members of the General Staff Corps.

INCREASE TO BE MADE IN FIVE INCREMENTS.—The increases and promotions in the commissioned and enlisted personnel of the Regular Army shall be made in five annual increments, beginning July first, nineteen hundred and sixteen.

In the event of actual or threatened war or similar emergency in which the public safety demands it the President is authorized to immediately organize the entire increase authorized, or so much thereof as he may deem necessary, and when, in the judgment of the President, war becomes imminent, all of said organizations that shall then be below the maximum enlisted strength authorized by law shall be raised forthwith to that strength, and shall be maintained as nearly as possible thereafter so long as war, or the imminence of war, shall continue.

Vacancies in the grade of second lieutenant, caused by the increases due to this Act, in any fiscal year shall be filled by appointment in the following order: (1) Of cadets graduated from the United States Military Academy; (2) under the provisions of existing law, of enlisted men, including officers of the Philippine Scouts, whose fitness for promotion shall have been determined by competitive examination; (3) of members of the Officers' Reserve Corps between the ages of twenty-one and twenty-seven years; (4) of commissioned officers of the National Guard between the ages of twenty-one and twenty-seven years; (5) of such honor graduates, between the ages of twenty-one and twenty-seven years, of distinguished colleges as are entitled to preference by general orders of the War Department; and (6) of candidates from civil life between the ages of twenty-one and twenty-seven years; and the President is authorized to make the necessary rules and regulations to carry these provisions into effect. Enlisted men of the Regular Army who have completed one year's service with an organization may become candidates for vacancies in the grade of second lieutenant created by increases.

ENLISTMENTS IN THE REGULAR ARMY.—All enlistments in the Regular Army shall be for a term of seven years, the first three years to be in the active service with the organizations of which those enlisted form a part and, except as otherwise provided, the last four years in the Regular Army Reserve. At the expiration of three years' continuous service with such organizations, any soldier may be reenlisted for another period of seven years, as above provided for, in which event he shall receive his final discharge from his prior enlistment. After the expiration of one year's honorable service any enlisted man serving within the continental limits of the United States whose commander shall report him as proficient and sufficiently trained may, in the discretion of the Secretary of War, be furloughed to the Regular Army Reserve, but no man furloughed to the reserve shall be eligible to reenlist in the service until the expiration of his term of seven years. No person under the age of eighteen years shall be enlisted or mustered into the military service of the United States without the written consent of his parents or guardians, provided that such minor has such parents or guardians entitled to his custody and control. The President is authorized to utilize the services of postmasters of the second, third, and fourth classes in procuring the enlistment of recruits for the Army, and for each recruit accepted, the postmaster procuring his enlistment shall receive the sum of \$5.

In addition to military training, soldiers while in the active service shall be given the opportunity to study and receive instruction upon educational lines of such character as to increase their military efficiency and enable them to return to civil life better equipped for industrial, commercial, and general business occupations. Civilian teachers may be employed to aid the Army officers in giving such instruction, and part of this instruction may consist of vocational education either in agriculture or the mechanic arts. The Secretary of War, with the approval of the President, shall prescribe rules and regulations for conducting the instruction and shall have the power at all times to suspend, increase, or decrease the amount of such instruction offered as may be consistent with the requirements of military instruction and service of the soldiers.

FINAL DISCHARGE OF ENLISTED MEN.—No enlisted man in the Regular Army shall receive his final discharge until the termination of his seven-year term of enlistment except upon reenlistment as provided by law for discharge prior to expiration of term of enlistment, but when an enlisted man is furloughed to the Regular Army Reserve his account shall be closed and he shall be paid in full to the date such furlough becomes effective, including allowances for discharged soldiers. When by reason of death or disability of a member of the family of an enlisted man occurring after his enlistment members of his family become dependent upon him for support, he may, in the discretion of the Secretary of War, be discharged from the service of the United States or be furloughed to the Regular Army Reserve, upon due proof being made of such condition. When an enlisted man is discharged by purchase while in active service

he shall be furloughed to the Regular Army Reserve, unless, in the discretion of the Secretary of War, he is given a final discharge from the Army.

THE REGULAR ARMY RESERVE

The Regular Army Reserve shall consist of, first, all enlisted men now in the Army Reserve or who shall hereafter become members; second, all enlisted men furloughed to or enlisted in the Reserve; and third, any person holding an honorable discharge from the Regular Army with character reported at least good who is physically qualified for the duties of a soldier and not over forty-five years of age who enlists in the Regular Army Reserve for a period of four years.

The President may summon the Regular Army Reserve or any part thereof for field training for a period not exceeding fifteen days in each year, the reservists to receive travel expenses and pay at the rate of their respective grades in the Regular Army during such periods of training; and in the event of actual or threatened hostilities he may mobilize the Regular Army Reserve in such manner as he may determine, and thereafter retain it, or any part thereof, in active service for such period as the conditions demand. The members shall be paid semiannually at the rate of \$24 a year while in the reserve.

THE OFFICERS' RESERVE CORPS.—For the purpose of securing a reserve of officers available for service as temporary officers in the Regular Army, there shall be organized an Officers' Reserve Corps.

No member shall be subject to call for service in time of peace, and whenever called upon for service shall not, without his consent, be so called in a lower grade than that held by him in said reserve corps.

The President alone shall be authorized to appoint and commission as reserve officers in the various sections of the Officers' Reserve Corps, such citizens as, upon examination, shall be found physically and morally qualified to hold such commissions.

INSTRUCTION OF OFFICERS.—The Secretary of War is authorized to order reserve officers to duty with troops or at field exercises, or for instruction, for periods not to exceed fifteen days in any one calendar year, and while so serving such officers shall receive the pay and allowances of their respective grades in the Regular Army.

THE RESERVE OFFICERS' TRAINING CORPS.—The President is authorized to establish and maintain, in civil educational institutions, a Reserve Officers' Training Corps, which shall consist of a senior division organized at universities and colleges requiring four years of collegiate study for a degree, including State universities and those State institutions that are required to provide instruction in military tactics, in addition to practical instruction in agriculture and the mechanic arts, and a junior division organized at all other public or private educational institutions, except that units of the senior division may be organized at those essentially military schools which do not confer an academic degree but which, as a result of the annual inspection of such institutions by the War Department, are specially designated by the Secretary of War as qualified for units of the senior division.

The President may, upon the application of any State institution, establish and maintain at such institution one or more units of the Reserve Officers' Training Corps. No such unit shall be established or maintained at any such institution until an officer of the Army shall have been detailed as professor of military science and tactics, nor until such institution shall maintain under military instruction at least one hundred physically fit male students.

The President may, upon the application of any established educational institution in the United States, the authorities of which agree to establish and maintain a two years' elective or compulsory course of military training as a minimum for its physically fit male students, which course when entered upon by any student shall, as regards such student, be a prerequisite for graduation, establish and maintain at such institution one or more units of the Reserve Officers' Training Corps.

Eligibility to membership shall be limited to students of institutions in which units of such corps may be established who are citizens of the United States, who are not less than fourteen years of age, and whose bodily condition indicates that they are physically fit to perform military duty, or will be so on arrival at military age.

The President is authorized to detail such numbers of officers of the Army, not above the grade of Colonel, for duty as professors and assistant professors of military science and tactics

at institutions where units of the Training Corps are maintained. The total number of active officers so detailed shall not exceed three hundred and they shall have had five years' commissioned service in the Army.

The Secretary of War is authorized to issue to institutions at which units of the Reserve Officers' Training Corps are maintained such public animals, arms, uniforms, equipment, and means of transportation as he may deem necessary, and to forage at the expense of the United States public animals so issued. He is also authorized to maintain camps for the further practical instruction of the members for a period not longer than six weeks in any one year, except in time of actual or threatened hostilities; to transport members of such corps to and from such camps at the expense of the United States so far as appropriations will permit; to subsist them at the expense of the United States while traveling to and from such camps and while remaining therein.

Any physically fit male citizen of the United States, between the ages of twenty-one and twenty-seven years, who shall have graduated from any educational institution at which an officer of the Army was detailed as professor of military science and tactics, and who, while a student there, completed courses of military training, shall, after satisfactorily completing additional military training as shall be subscribed, be eligible for appointment to the Officers' Reserve Corps and as a temporary additional second lieutenant.

TRAINING CAMPS.—The Secretary of War is authorized to maintain camps for the military instruction and training of such citizens as may be selected, upon their application and under such terms of enlistment and regulations as may be prescribed by the Secretary of War; to use, for the purpose of maintaining said camps and imparting military instruction and training thereat, such arms, equipments, and transportation belonging to the United States as he may deem necessary; to furnish, at the expense of the United States, uniforms, subsistence, transportation by the most usual and direct route; and medical supplies to persons receiving instruction at said camps during the period of their attendance thereat, to authorize such expenditures, from proper Army appropriations, as he may deem necessary, and to sell to persons receiving instruction at said camps, at cost price plus ten per cent., quartermaster and ordnance property, the amount sold to any one person to be limited to that which is required for his proper equipment.

THE ENLISTED RESERVE CORPS.—For the purpose of securing an additional reserve of enlisted men for military service with the Engineer, Signal, and Quartermaster Corps and the Ordnance and Medical Departments of the Regular Army, an Enlisted Reserve Corps, to consist of such number of enlisted men of such grade or grades as may be designated by the President from time to time, is authorized. There may be enlisted, for a period of four years, citizens of the United States, or persons who have declared their intentions to become citizens, who are between the ages of eighteen and forty-five years.

The Secretary of War may order enlisted men of the Enlisted Reserve Corps to active service for purposes of instruction or training for periods not to exceed fifteen days in any one calendar year. With the consent of the enlisted man, such periods of active service may be extended. Enlisted men shall receive pay and allowances of their respective grades, but only when ordered into active service, including the time required for actual travel from their homes to the places to which ordered and return to their homes. Upon a call by the President for a volunteer force, the members of the Enlisted Reserve Corps may be mustered into the service of the United States as volunteers for duty with the Army in the grades held by them in the said corps, and shall be entitled to the pay and allowances of the corresponding grades in the Regular Army.

THE MILITIA

The militia of the United States shall consist of all able-bodied male citizens of the United States and all other able-bodied males who have or shall have declared their intention to become citizens of the United States, who shall be more than eighteen years of age and, except as hereinafter provided, not more than forty-five years of age, and said militia shall be divided into three classes, the National Guard, the Naval Militia, and the Unorganized Militia.

COMPOSITION OF THE NATIONAL GUARD.—The National Guard shall consist of the regularly enlisted militia, organized, armed, and equipped and of commissioned officers between the ages of twenty-one and sixty-four years.

EXEMPTIONS FROM MILITIA DUTY.—The Vice President of

the United States; the officers, judicial and executive, of the Government of the United States and of the several States and Territories; persons in the military or naval service of the United States; customhouse clerks; persons employed by the United States in the transmission of the mail; artificers and workmen employed in the armories, arsenals, and navy yards of the United States; pilots; mariners actually employed in the sea service of any citizen or merchant within the United States, shall be exempt from militia duty without regard to age, and all persons who because of religious belief shall claim exemption from military service, if the conscientious holding of such belief by such person shall be established, shall be exempted from militia service in a combatant capacity; but no person so exempted shall be exempt from militia service in any capacity that the President shall declare to be noncombatant.

NUMBER OF THE NATIONAL GUARD.—The number of enlisted men of the National Guard shall be for each State, in the proportion of two hundred men for each Senator and Representative in Congress from such State, and a number to be determined by the President for each Territory and the District of Columbia, and shall be increased each year in the proportion of not less than fifty per cent until a total peace strength of not less than eight hundred enlisted men for each Senator and Representative in Congress shall have been reached. In States which have but one Representative in Congress such increase shall be at the discretion of the President.

CHIEFS OF STAFF.—The President may detail one officer of the Regular Army as Chief of Staff and one officer of the Army or the National Guard as assistant to the Chief of Staff of any division of the Guard. In order to secure the prompt mobilization of the Guard in time of war or other emergency, the President may, in time of peace, detail an officer of the Army to perform the duties of Chief of Staff for each fully organized tactical division of the National Guard.

SERGEANTS FOR DUTY WITH THE NATIONAL GUARD.—For the purpose of assisting in the instruction of the personnel and care of property in the hands of the National Guard the Secretary of War is authorized to detail from the Regular Army not to exceed one thousand sergeants for duty with the National Guard.

ADJUTANTS GENERAL OF STATES, ETC.—The adjutants general of the States, Territories, and the District of Columbia and the officers of the National Guard shall make such returns and reports to the Secretary of War, or to such officers as he may designate, at such times and in such form as he may prescribe. The adjutants general of the Territories and of the District of Columbia shall be appointed by the President and shall be citizens of the Territories for which they are appointed.

APPROPRIATION, APPORTIONMENT, AND DISBURSEMENT.—A sum of money shall hereafter be appropriated annually, for the support of the National Guard, including the expense of providing arms, ordnance stores, and camp equipage, and all other military supplies for issue to the National Guard.

ENLISTMENTS IN THE NATIONAL GUARD.—Hereafter the period of enlistment in the National Guard shall be for six years, the first three years of which shall be in an active organization and the remaining three years in the National Guard Reserve, and the qualifications for enlistment shall be the same as those prescribed for admission to the Regular Army.

Hereafter all men enlisting for service in the National Guard shall sign an enlistment contract and take and subscribe to the oath which contains an obligation to defend the Constitution of the United States and to obey the orders of the President of the United States.

DISCHARGE OF ENLISTED MEN.—An enlisted man discharged from service in the National Guard shall receive a discharge in writing in such form and with such classification as is prescribed for the Regular Army, and in time of peace discharges may be given prior to the expiration of terms of enlistment under such regulations as the President may prescribe.

QUALIFICATIONS FOR OFFICERS.—Persons hereafter commissioned as officers of the National Guard shall be selected from the following classes and shall take and subscribe to an oath of office: Officers or enlisted men of the Guard; officers and former officers of the United States Army, Navy, and Marine Corps; graduates of the Military and Naval Academies and of schools, colleges, and universities where military science is taught, and, for the technical branches and staff corps or departments, such other civilians as may be especially qualified for duty therein. The applicant shall have successfully passed examinations conducted by a board of three commissioned officers appointed by the Secretary of War.

THE NATIONAL GUARD RESERVE

A National Guard Reserve shall be organized in each State, Territory, and the District of Columbia, and shall consist of such organizations, officers, and enlisted men as the President may prescribe, or members thereof may be assigned as reserves to an active organization of the National Guard. Members of said reserve, when engaged in field or coast-defense training with the active National Guard, shall receive the same Federal pay and allowances as enlisted men of like grade on the active list of said guard when likewise engaged.

LEAVES OF ABSENCE FOR GOVERNMENT EMPLOYEES.—All officers and employees of the United States and of the District of Columbia who shall be members of the National Guard shall be entitled to leave of absence from their respective duties, without loss of pay, time, or efficiency rating, on all days during which they shall be engaged in field or coast-defense training.

MILITIA BUREAU OF THE WAR DEPARTMENT.—The Militia Division now existing in the War Department shall hereafter be known as the Militia Bureau, shall, like other bureaus of said department, be under the immediate supervision of the Secretary of War, and shall not form a part of any other bureau, office, or other organization, but the Chief of the Militia Bureau shall be ex officio a member of the General Staff Corps.

ARMAMENT, EQUIPMENT, AND UNIFORM.—The National Guard of the United States shall, as far as practicable, be uniformed, armed, and equipped with the same type of uniforms, arms, and equipments as are provided for the Regular Army.

The Secretary of War is authorized to procure, by purchase or manufacture, and to issue from time to time to the Guard, upon requisition of the governors of the several States and Territories or the commanding general of the National Guard of the District of Columbia, such number of United States service arms, with all accessories, field uniforms, etc., including public animals, as are necessary to arm, and equip the Guard for field service.

DISCIPLINE.—The discipline (which includes training) of the National Guard shall conform to the system which is now prescribed for the Regular Army.

TRAINING OF THE NATIONAL GUARD.—Each company, troop, battery, and detachment in the National Guard shall assemble for drill and instruction, including indoor target practice, not less than forty-eight times each year, and shall, in addition thereto, participate in encampments, maneuvers, or other exercises, including outdoor target practice, at least fifteen days in training each year, unless such company, troop, battery, or detachment shall have been excused from participation in any part thereof by the Secretary of War. Credit shall not be given unless the number of officers and enlisted men present for duty at such assembly shall equal a minimum to be prescribed by the President, nor unless the period of actual military duty and instruction, at each assembly shall be of at least one and one-half hours' duration.

INSPECTIONS OF THE NATIONAL GUARD.—The Secretary of War shall cause an inspection of the Guard to be made at least once each year by inspectors general of the Regular Army.

USE OF REGULAR ARMY PERSONNEL.—The Secretary of War may detail one or more officers and enlisted men of the Regular Army to attend any encampment, maneuver, or other exercise for field or coast-defense instruction of the National Guard, who shall give such instruction and information to the officers and men.

NATIONAL GUARD OFFICERS AND MEN AT SERVICE SCHOOLS.—The Secretary of War may, upon the recommendation of the governor of any State or Territory or the commanding general of the National Guard of the District of Columbia, authorize a limited number of selected officers or enlisted men of the National Guard to attend and pursue a regular course of study at any military service school of the United States, except the United States Military Academy; or to be attached to an organization of the same corps, or department to which such officer or enlisted man shall belong, for routine practical instruction at or near an Army post during a period of field training or other outdoor exercises.

SUBJECT TO LAWS GOVERNING REGULAR ARMY.—The National Guard when called as such into the service of the United States shall, from the time they are required by the terms of the call to respond thereto, be subject to the laws and regulations governing the Regular Army, so far as they are applicable to officers and enlisted men whose permanent retention in the military service, is not contemplated by existing law.

PAY FOR NATIONAL GUARD OFFICERS.—Certain commis-

sioned officers on the active list belonging to organizations of the National Guard shall receive compensation for their services, except during periods of service for which they may become lawfully entitled to the same pay as officers of corresponding grades of the Regular Army, as follows: A captain \$500 per year and the same pay shall be paid to every officer of higher rank than that of captain, a first lieutenant \$240 per year, and a second lieutenant \$200 per year.

All staff officers, aids-de-camp, and chaplains shall receive not to exceed one-half of the pay of a captain, except that regimental adjutants, and majors and captains in command of machine-gun companies, ambulance companies, field hospital companies, or sanitary troops shall receive the pay hereinbefore authorized for a captain.

PAY FOR ENLISTED MEN.—Each enlisted man on the active list belonging to an organization of the National Guard shall receive compensation for his services, except during periods of service for which he may become lawfully entitled to the same pay as an enlisted man of corresponding grade in the Regular Army, at a rate equal to twenty-five per cent. of the initial pay now provided by law for enlisted men of corresponding grades of the Army. Such enlisted man shall receive the compensation provided if he shall have attended not less than forty-eight regular drills during any one year, and a proportionate amount for attendance upon a lesser number of such drills, not less than twenty-four.

WHEN DRAFTED INTO FEDERAL SERVICE.—When Congress shall have authorized the use of the armed land forces of the United States, for any purpose requiring the use of troops in excess of those of the Regular Army, the President may, under such regulations, draft into the military service of the United States, to serve therein for the period of the war unless sooner discharged, any or all members of the National Guard and of the National Guard Reserve. All persons so drafted shall, from the date of their draft, stand discharged from the militia, and shall from said date be subject to such laws and regulations for the government of the Army of the United States as may be applicable to members of the Volunteer Army, and shall be embodied in organizations corresponding as far as practicable to those of the Regular Army or shall be otherwise assigned as the President may direct. The commissioned officers of said organizations shall be appointed from among the members thereof, officers with rank not above that of colonel to be appointed by the President alone, and all other officers to be appointed by the President.

ENCOURAGEMENT OF RIFLE PRACTICE.—The Secretary of War shall annually submit to Congress recommendations and estimates for the establishment and maintenance of indoor and outdoor rifle ranges, under such a comprehensive plan as will ultimately result in providing adequate facilities for rifle practice in all sections of the country. And that all ranges so established and all ranges which may have already been constructed, shall be open for use by those in any branch of the military or naval service of the United States and by all able-bodied males capable of bearing arms, under reasonable regulations to be prescribed by the controlling authorities. The President may detail capable and noncommissioned officers of the Regular Army and National Guard to duty at such ranges as instructors for the purpose of training the citizenry in the use of the military arm. Where rifle ranges shall have been so established and instructors assigned to duty thereat, the Secretary of War shall be authorized to provide for the issue of a reasonable number of standard military rifles and such quantities of ammunition as may be available for use in conducting such rifle practice.

An enlisted man when discharged from the service, except by way of punishment for an offense, shall receive 3½ cents per mile from the place of his discharge to the place of his acceptance for enlistment, enrollment, or original muster into the service, at his option. For sea travel on discharge transportation and subsistence only shall be furnished to enlisted men.

THE COUNCIL OF NATIONAL DEFENSE

On October 11, 1916, President Wilson appointed seven members of the Advisory Commission to be associated with the Council of National Defense created by a law approved August 29, 1916.

The Council of National Defense consists of the Secretaries of War, Navy, Interior, Agriculture, Commerce, and Labor.

The members are Daniel Willard, President of the Baltimore and Ohio Railroad; Samuel Gompers, President of the American

Federation of Labor; Dr. Franklin H. Martin of Chicago; Howard E. Coffin of Detroit; Bernard Baruch of New York; Hollis Godfrey of Philadelphia, and Julius Rosenwald of Chicago.

The Council of National Defense has been created because the Congress has realized that the country is best prepared for war when thoroughly prepared for peace.

Upon this conception of the national welfare the council is organized for the creation of relations which will render possible in time of need the immediate concentration and utilization of the resources of the Nation.

ARMY APPROPRIATIONS

Approximately \$175,000,000 has been appropriated by Congress, for the Army, for the year ending June 30, 1917. The law, approved August 29, 1916, carries the following appropriations:

Ammunition for field artillery for National Guard.	\$10,000,000
Armored motor cars.	500,000
Barracks and quarters for Army and National Guard	3,146,000
Citizens' training camps.	2,000,000
Clothing, camp and garrison equipage.	20,000,000
Dependents of National Guardsmen now in service	2,000,000
Field artillery for National Guard.	10,000,000
Horses for the Army.	2,500,000
Machine rifles.	6,000,000
Machine rifles for National Guard.	6,000,000
Manufacture of arms.	5,000,000
Medical department.	4,500,000
Ordnance stores and ammunition.	10,000,000
Ordnance stores and supplies.	9,500,000
Pay of enlisted men.	23,000,000
Pay (additional) for length of service.	2,300,000
Pay of enlisted men National Guard.	18,000,000
Pay of Medical Department.	2,300,000
Pay of officers of the line.	10,000,000
Pay (additional) for length of service.	2,225,000
Pay of officers National Guard.	9,000,000
Pay for retired officers and enlisted men.	5,800,000
Purchase of land in California for aviation school.	300,000
Quartermasters Corps, regular supplies.	11,000,000

Quartermasters Corps, other supplies.	\$ 2,000,000
Signal service.	14,281,766
Small-arms target practice.	3,000,000
Subsistence of Army.	20,000,000
Transportation of the Army and supplies.	23,000,000
Water and sewers at military posts and mobilization camps.	4,000,000

COLLEGES IN ARMY RESERVE

The following institutions were authorized by the War Department officials, to give military instruction:

Princeton University, Harvard University, Yale University, University of Michigan, University of Alabama, Virginia Military Institute, Stevens Institute of Technology, Catholic University of America, Lehigh University, Ohio State University, University of Tennessee, Clemson Agricultural College, University of Minnesota, University of Illinois, City College of New York and University of Vermont.

These institutions will give an approved military course under supervision of the War Department and the graduates thereof may be commissioned as second lieutenants in the Regular Army Reserve. It is aimed to create a maximum of 50,000 such officers.

THEATRE FIRES

The first of the many terrible theatre fires which have caused the death of such a multitude of amusement-seekers occurred in 1613, when Shakespeare's Globe Theatre in London was completely consumed by the flames. The house was crowded to its capacity to witness the play of "Henry VIII," but there was no panic and the audience escaped unhurt. In the early part of the last century three London playhouses—the Surrey, the Covent Garden and the Drury Lane—were destroyed by fire, and in 1811 the first of the disastrous theatre fires of America occurred in Richmond, when seventy persons, including Gov. Smith, perished in the flames. The Iroquois Theatre fire in Chicago was the most terrible of modern conflagrations of this character, 573 persons, mostly women and children, having been burned or trampled to death in that horrible 1903 disaster.

EIGHT-HOUR RAILROAD LAW

An Act To Establish an eight-hour day for employees of carriers engaged in interstate and foreign commerce, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That beginning January first, nineteen hundred and seventeen, eight hours shall, in contracts for labor and service, be deemed a day's work and the measure or standard of a day's work for the purpose of reckoning the compensation for services of all employees who are now or may hereafter be employed by any common carrier by railroad, except railroads independently owned and operated not exceeding one hundred miles in length, electric street railroads, and electric interurban railroads, which is subject to the provisions of the Act of February fourth, eighteen hundred and eighty-seven, entitled "An Act to regulate commerce," as amended, and who are now or may hereafter be actually engaged in any capacity in the operation of trains used for the transportation of persons or property on railroads, except railroads independently owned and operated not exceeding one hundred miles in length, electric street railroads, and electric interurban railroads, from any State or Territory of the United States or the District of Columbia to any other State or Territory of the United States or the District of Columbia, or from one place in a Territory to another place in the same Territory, or from any place in the United States to an adjacent foreign country, or from any place in the United States through a foreign country to any other place in the United States: *Provided,* That the above exceptions shall not apply to railroads though less than one hundred miles in length whose principal business is leasing or furnishing terminal or transfer facilities to other railroads, or are themselves engaged in transfers of freight between railroads or between railroads and industrial plants.

Sec. 2. That the President shall appoint a commission of three, which shall observe the operation and effects of the in-

stitution of the eight-hour standard workday as above defined and the facts and conditions affecting the relations between such common carriers and employees during a period of not less than six months nor more than nine months, in the discretion of the commission, and within thirty days thereafter such commission shall report its findings to the President and Congress; that each member of the commission created under the provisions of this Act shall receive such compensation as may be fixed by the President. That the sum of \$25,000, or so much thereof as may be necessary, be, and hereby is, appropriated, out of any money in the United States Treasury not otherwise appropriated, for the necessary and proper expenses incurred in connection with the work of such commission, including salaries, per diem, traveling expenses of members and employees, and rent, furniture, office fixtures and supplies, books, salaries, and other necessary expenses, the same to be approved by the chairman of said commission and audited by the proper accounting officers of the Treasury.

Sec. 3. That pending the report of the commission herein provided for and for a period of thirty days thereafter the compensation of railway employees subject to this Act for a standard eight-hour workday shall not be reduced below the present standard day's wage, and for all necessary time in excess of eight hours such employees shall be paid at a rate not less than the pro rata rate for such standard eight-hour workday.

Sec. 4. That any person violating any provision of this Act shall be guilty of a misdemeanor and upon conviction shall be fined not less than \$100 and not more than \$1,000, or imprisoned not to exceed one year, or both.

Approved, September 3, 1916.

Approved, September 5, 1916.

On October 5, 1916, President Wilson named Major General George W. Goethals, Commissioner Edward E. Clark of the Interstate Commerce Commission and George Rublee, of the Trade Commission as members of the board to investigate the railroad eight-hour law.

UNITED STATES SHIPPING LAW

In a law, approved September 7, 1916, Congress established a United States Shipping Board, for the purpose of creating a naval auxiliary and naval reserve and a merchant marine, to meet the requirements of the commerce of the United States, with its Territories and possessions and with foreign countries. This Shipping Board shall regulate carriers by water, engaged in foreign and interstate commerce of the United States.

The board is composed of five commissioners, appointed by the President for two, three, four, five and six years respectively, from the date of their appointment. Their successors shall be appointed for a term of six years. Each member's salary is \$7,500 per annum. The secretary receives \$5,000.

Function

The board, with the approval of the President, is authorized to have constructed and equipped in American shipyards and navy yards or to purchase, lease, or charter, vessels suitable, as far as the commercial requirements of the marine trade of the United States may permit, for use as naval auxiliaries or Army transports, or for other naval or military purposes, and to make necessary repairs on and alterations of such vessels. Vessels engaged in foreign or domestic commerce or vessels under a flag of a foreign country at war shall not be taken.

The board may charter, lease or sell to any citizen of the United States, any vessel which they have acquired. This vessel may be registered as a vessel of the United States and entitled to the benefits and privileges appertaining thereto.

No vessel registered under the laws of the United States shall, in time of national emergency, be sold, leased, or chartered to any person not a citizen of the United States, or transferred to a foreign flag, without the approval of the board.

No vessel registered under the laws of the United States, or owned by any citizen, except one which the board is prohibited from purchasing, shall be sold to any person not a citizen of the United States or transferred to a foreign flag, unless first tendered to the board at the price, in good faith, offered by others. Whoever violates any provision of this section shall be guilty of a misdemeanor and subject to a fine of not more than \$5,000 or to imprisonment of not more than five years, or both.

If, in the judgment of the President, an emergency exists he may take possession of any vessel purchased, leased or chartered from the board without notice. The board may form, under the laws of the District of Columbia, one or more corporations for the purchase, construction, equipment, lease, charter, maintenance, and operation of merchant vessels in the commerce of the United States. The total capital stock thereof shall not exceed \$50,000,000. The board may subscribe to not less than a majority of the capital stock of any such corporation, and do all other things in regard thereto necessary to protect the interests of the United States and to carry out the purposes of this Act. The board, with the approval of the President, may sell any or all of the stock of the United States in such corporation, but at no time shall it be a minority stockholder therein. No corporation in which the United States is a stockholder shall engage in the operation of any vessel acquired, unless the board shall be unable, after a bona fide effort, to contract with any person a citizen of the United States for the purchase, lease, or charter of such vessel.

At the expiration of five years from the conclusion of the present European war, the operation of vessels on the part of any corporation in which the United States is then a stockholder, shall cease and the said corporation stand dissolved. The vessels and other property of any such corporation shall revert to the board. The board may sell, lease, or charter such vessels and shall dispose of the other property on the best available terms and, after payment of all debts and obligations, deposit the proceeds in the Treasury to its credit. All stock in such corporations owned by others, at the time of dissolution shall be taken over by the board at a fair and reasonable value and paid for, with funds to the credit of the board.

The board shall investigate the relative cost of building merchant vessels in the United States and in foreign countries, and the cost and advantages of operating in the foreign trade vessels under the United States registry and under foreign registry. It shall examine the rules under which vessels are constructed abroad and in the United States, and the methods of classifying and rating same, and it shall examine into the subject of marine insurance, and ascertain what steps may be necessary to develop an ample marine insurance system as an

aid in the development of an American merchant marine. It shall examine the navigation laws of the United States and make such recommendations to Congress as it deems proper for the amendment and improvement of such laws, and for the development of the American merchant marine.

No common carrier by water, shall directly or indirectly—

1st. Return or allow any portion of the freight money by a carrier to any shipper as a consideration for the giving of all or any portion of his shipments to the same or any other carrier, or for any other purpose, the payment of which is deferred beyond the completion of the service for which it is paid, and is made only if, during both the period for which computed and the period of deferment, the shipper has complied with the terms of the rebate agreement or arrangement.

2d. Use either separately or in conjunction with any other carrier, a vessel, in a particular trade, for the purpose of preventing, or reducing competition by driving another carrier out of said trade.

3d. Retaliate against any shipper by refusing, or threatening to refuse, space accommodations when such are available, or resort to other discriminating or unfair methods, because such shipper has patronized any other carrier or has filed a complaint charging unfair treatment, or for any other reason.

4th. Make any unfair discriminatory contract with any shipper based on the volume of freight offered, or unfairly treat or unjustly discriminate against any shipper in the matter of (a) cargo space accommodations or other facilities, due regard being had for the proper loading of the vessel and the available tonnage; (b) the loading and landing of freight in proper condition; or (c) the adjustment and settlement of claims.

Any carrier who violates any of these provisions shall be guilty of a misdemeanor punishable by a fine of not more than \$25,000 for each offense.

It shall be unlawful for any common carrier by water, or other person subject to this Act—

1st. To make or give any undue preference to any particular person, locality, or description of traffic in any respect whatsoever, or to subject same to any undue prejudice or disadvantage in any respect whatsoever.

2d. To allow any person to obtain transportation for property at less than the regular rates then established on the line of such carrier, by means of false billing, false report of weight, or by any other unjust or unfair device or means.

3d. To influence any marine insurance company or underwriter, or agent thereof, not to give a competing carrier by water as favorable a rate of insurance on vessel or cargo, having due regard to the class, as is granted to such carrier or other person subject to this Act.

No common carrier by water in foreign commerce shall demand, charge, or collect any rate, fare, or charge which is unjustly discriminatory between shippers or ports, or unjustly prejudicial to exporters of the United States as compared with their foreign competitors.

Every common carrier by water, in interstate commerce, shall file with the board and keep open to public inspection, the maximum rates, fares, and charges for or in connection with transportation between points on its own route; and if a through route has been established, points on its own route and points on the route of any other carrier by water. Whenever such carrier reduces its rates on the carriage of any species of freight to or from competitive points below a fair and remunerative basis with the intent of driving out or otherwise injuring a competitive carrier by water, it shall not increase such rates unless after hearing the board finds that such proposed increase rests upon changed conditions other than the elimination of said competition.

It shall be unlawful for any common carrier by water or other person subject to this Act, or for any person authorized by such carrier or person to receive information, knowingly to disclose or to permit to be acquired by any person other than the shipper or consignee, without his consent, any information concerning the kind, destination, consignee, or routing of any property tendered or delivered to such common carrier or other person subject to this Act for transportation in interstate or foreign commerce, which information may be used to the detriment or prejudice of such shipper or consignee, or which may improperly disclose his business transactions to a competitor, or which may be used to the detriment or prejudice of any carrier; and it shall also be unlawful for any person to solicit or knowingly receive any such information which may be so used.

The board may require any common carrier by water, or other person subject to this Act, to file with it any periodical or special report, or any account, record, rate, or charge, or any memorandum of any facts and transactions appertaining to the business of such carrier or other person subject to this Act. Such report, account, record, rate, charge, or memorandum shall be under oath whenever the board so requires, and shall be furnished in the form and within the time prescribed by the board. Whoever fails to file same, shall forfeit to the United States the sum of \$100 for each day of such default.

Any person may file with the board a sworn complaint setting forth any violation of this Act, and asking reparation for the injury, if any, caused thereby. The board shall furnish a copy of the complaint to common carrier or other person, who shall, within a reasonable time specified by the board satisfy the complaint or answer it in writing. If the complaint is not satisfied, the board shall investigate it and make such order as it deems proper.

The board may reverse, suspend, or modify, in such manner as it deems proper, any order made by it. Upon application of any party to a decision or order it may grant a rehearing of the same, but no such application for or allowance of a hearing shall operate as a stay of such order.

The board shall enter on record, a written report of every investigation and hearing and may publish such reports in the form best adapted for public information and use, and such authorized publications shall, without further proof or authentication, be competent evidence of such reports in all courts of the United States and possessions.

LEGAL REGULATION OF LENGTH OF WORKING-DAY

Eight Hours

*Public employees and employees on public works (30 States and Territories).—*District of Columbia, Alaska, Arizona, California, Colorado, Idaho, Indiana, Kansas, Kentucky, Maryland, Massachusetts, Minnesota, Missouri, Montana, Nevada, New Jersey, New Mexico, New York, Ohio, Oklahoma, Oregon, Pennsylvania, Texas, Utah, Washington, West Virginia, Wisconsin, Wyoming, Hawaii, Porto Rico, and the United States. The 8-hour day for public employees is fixed by the constitutions of Arizona, California, Idaho, Montana, New Mexico, Ohio, Oklahoma, Utah, and Wyoming.

*Mines (14 States).—*Alaska, Arizona, California, Colorado, Idaho, Missouri, Montana, Nevada, Oklahoma, Oregon, Pennsylvania, Utah, Washington, and Wyoming.

*Smelters, reduction works, etc. (6 States).—*Alaska, Arizona, California, Colorado, Idaho, Missouri, Montana, Utah, and Wyoming.

*Electric light and power plants (1 State).—*Arizona.
*Coke ovens (3 States).—*Alaska, Arizona, and Colorado.

*Blast furnaces (4 States).—*Arizona and Colorado.

*Cement and plaster mills (2 States).—*Arizona and Nevada.

*Plate-glass works (1 State).—*Missouri.

*Rolling, rod, and stamp mills (5 States).—*Alaska, Arizona, Colorado, Idaho, and Wyoming.

*Tunnels (3 States).—*Arizona, California, and Montana.

*High-air pressure (2 States).—*New Jersey and New York.

*Irrigation works (1 State).—*Montana.

*Railroad telegraphers (6 States).—*Arkansas, Connecticut, Maryland, Nevada, Texas, and West Virginia.

*Day's work unless otherwise stipulated (9 states).—*California, Connecticut, Illinois, Indiana, Missouri, New York, Ohio, Pennsylvania, and Wisconsin.

Nine Hours

*Railroad telegraphers (5 States).—*District of Columbia, Nebraska, North Carolina, Oregon, and the United States.

*Telephone operators (1 State).—*Montana.

*Street railways (1 State).—*Massachusetts.

*Interlocking-lower operators, railroad (1 State).—*Missouri.

Ten Hours

*Saw and planing mills (1 State).—*Arkansas.

*Bakeries (1 State).—*New Jersey.

*Brickyards (corporation) (1 State).—*New York.

*Drug stores (2 States).—*California and New York.¹

*Cotton and woolen mills (4 States).—*Georgia and Maryland.

*Manufacturing establishments (1 State).—*Mississippi.

*Street railways (5 States).—*Louisiana, New York, Rhode Island, and Washington.

¹ Seventy hours per week, 6 hours overtime allowed to make shorter succeeding week; not over 132 hours in any two consecutive weeks.

It shall be the duty of the board, whenever complaint shall be made to it, to investigate the action of any foreign Government, with respect to the burdens imposed upon vessels of the United States engaged in foreign commerce, whenever it shall appear that the laws or practices of any foreign Government, operate in such a manner, that United States vessels are not accorded equal privileges with vessels of other foreign countries.

It shall be the duty of the board to report the results of its investigation to the President, with its recommendations, and the President is authorized and empowered to secure by diplomatic action, equal privileges for vessels of the United States engaged in such foreign trade. If by such action the President shall be unable to secure equal privileges, then he shall advise Congress as to the facts and his conclusions, by special message, if deemed important in the public interest, in order that proper action may be taken thereon.

The Secretary of the Treasury is authorized to refuse a clearance to any vessel laden with merchandise destined for a foreign or domestic port whenever he shall have satisfactory reason to believe that the master, owner, or other officer of such vessel refuses or declines to accept or receive freight or cargo in good condition tendered for such port of destination or for some intermediate port of call, together with the proper freight or transportation charges therefor, by any citizen of the United States, unless the same is fully laden and has no space accommodations for the freight or cargo so tendered, due regard being had for the proper loading of such vessel or vehicle, or unless such freight or cargo consists of merchandise for which such vessel or vehicle is not adaptable.

*Day's work unless otherwise stipulated (7 States).—*Florida, Maine, Michigan, Minnesota, Nebraska, New Hampshire, and Rhode Island.

Eleven Hours

*Grocery stores (1 State).—*New York.

Twelve Hours

*Railroad telegraphers. —*Island of Porto Rico.

*Railroad trainmen. —*Island of Porto Rico.

*Street railways (5 States).—*California, Maryland, New Jersey, Pennsylvania, and South Carolina.

These States have no provision in law for the limit of a day's work: Alabama, Delaware, Iowa, North Dakota, Tennessee, Vermont, and Virginia.

Thirteen Hours

*Railroad trainmen (2 States).—*Florida and Georgia.

Fourteen Hours

*Railroad trainmen (1 State).—*Oregon.

Fifteen Hours

*Railroad trainmen (1 State).—*Ohio.

*Railroad telegraphers (1 State).—*Ohio.

*Street railways (1 State).—*Ohio.

Sixteen Hours

*Railroad trainmen (21 States).—*Arizona, Arkansas, California, Colorado, District of Columbia, Indiana, Iowa, Kansas, Minnesota, Missouri, Montana, Nebraska, Nevada, New Mexico, New York, North Carolina, North Dakota, South Dakota, Texas, Washington, Wisconsin, and the United States.

*Railroad telegraphers (7 States).—*Arizona, California, Colorado, Indiana, Kansas, Missouri, and Montana.

Twenty-Four Hours

*Railroad trainmen (1 State).—*Michigan.

NOTE.—A Federal statute fixes the hours of labor of railroad trainmen at 16 per day, and of train dispatchers and railroad telegraph operators at 9 per day (13 hours in offices, etc., operated only in the daytime). Decisions of the United States Supreme Court and of the State courts hold State laws fixing a different standard to be void and unconstitutional in so far as interstate commerce is concerned; some courts also hold that a distinction between interstate and intrastate operations is impracticable, so that no law fixing a different standard is valid. Laws thus held void are those of Missouri, New York, Washington, and Wisconsin. The Federal statute enacted at the session of 64th Congress, "to establish an eight-hour day," does not restrict employment to eight hours, but makes the eight-hour day the measure for the payment of wages.

FEDERAL CHILD LABOR LAW

An Act To prevent interstate commerce in the products of child labor, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That no producer, manufacturer, or dealer shall ship or deliver for shipment in interstate or foreign commerce any article or commodity the product of any mine or quarry, situated in the United States, in which within thirty days prior to the time of the removal of such product therefrom children under the age of sixteen years have been employed or permitted to work, or any article or commodity the product of any mill, cannery, workshop, factory, or manufacturing establishment, situated in the United States, in which within thirty days prior to the removal of such product therefrom children under the age of fourteen years have been employed or permitted to work, or children between the ages of fourteen years and sixteen years have been employed or permitted to work more than eight hours in any day, or more than six days in any week, or after the hour of seven o'clock post-meridian, or before the hour of six o'clock antemeridian; *Provided*, That a prosecution and conviction of a defendant for the shipment or delivery for shipment of any article or commodity under the conditions herein prohibited shall be a bar to any further prosecution against the same defendant for shipments or deliveries for shipment of any such article or commodity before the beginning of said prosecution.

SEC. 2. That the Attorney General, the Secretary of Commerce, and the Secretary of Labor shall constitute a board to make and publish from time to time uniform rules and regulations for carrying out the provisions of this Act.

SEC. 3. That for the purpose of securing proper enforcement of this Act the Secretary of Labor, or any person duly authorized by him, shall have authority to enter and inspect at any time mines, quarries, mills, canneries, workshops, factories, manufacturing establishments, and other places in which goods are produced or held for interstate commerce; and the Secretary of Labor shall have authority to employ such assistance for the purposes of this Act as may from time to time be authorized by appropriation or other law.

SEC. 4. That it shall be the duty of each district attorney to whom the Secretary of Labor shall report any violation of this Act, or to whom any State factory or mining or quarry inspector, commissioner of labor, State medical inspector, or school-attendance officer, or any other person shall present satisfactory evidence of any such violation to cause appropriate proceedings to be commenced and prosecuted in the proper courts of the United States without delay for the enforcement of the penalties in such cases herein provided; *Provided*, That nothing in this Act shall be construed to apply to bona fide boys' and girls' canning clubs recognized by the Agricultural Department of the several States and of the United States.

SEC. 5. That any person who violates any of the provisions of section one of this Act, or who refuses or obstructs entry or inspection authorized by section three of this Act, shall for each offense prior to the first conviction of such person under the provisions of this Act, be punished by a fine of not more than \$200, and shall for each offense subsequent to such conviction be punished by a fine of not more than \$1,000, nor less than \$100, or by imprisonment for not more than three months, or by both such fine and imprisonment, in the discretion of the court:

Provided, That no dealer shall be prosecuted under the provisions of this Act for a shipment, delivery for shipment, or transportation who establishes a guaranty issued by the person by whom the goods shipped or delivered for shipment or transportation were manufactured or produced, resident in the United States, to the effect that such goods were produced or manufactured in a mine or quarry in which within thirty days prior to their removal therefrom no children under the age of sixteen years were employed or permitted to work, or in a mill, cannery, workshop, factory, or manufacturing establishment, in which within thirty days prior to the removal of such goods therefrom no children under the age of fourteen years were employed or permitted to work, nor children between the ages of fourteen years and sixteen years employed or permitted to work more than eight hours in any day or more than six days in any week or after the hour of seven o'clock post-meridian or before the hour of six o'clock antemeridian; and in such event, if the guaranty contains any false statement of a material fact, the guarantor shall be amenable to prosecution and to the fine or imprisonment provided by this section for violation of the provisions of this Act. Said guaranty, to afford the protection above provided, shall contain the name and address of the person giving the same: *And provided further*, That no producer, manufacturer, or dealer shall be prosecuted under this Act for the shipment, delivery for shipment, or transportation of a product of any mine, quarry, mill, cannery, workshop, factory, or manufacturing establishment, if the only employment therein, within thirty days prior to the removal of such product therefrom, of a child under the age of sixteen years has been that of a child as to whom the producer or manufacturer has in good faith procured, at the time of employing such child, and has since in good faith relied upon and kept on file a certificate, issued in such form, under such conditions, and by such persons as may be prescribed by the board, showing the child to be of such an age that the shipment, delivery for shipment, or transportation was not prohibited by this Act. Any person who knowingly makes a false statement or presents false evidence in or in relation to any such certificate or application therefor shall be amenable to prosecution and to the fine or imprisonment provided by this section for violations of this Act. In any State designated by the board, an employment certificate or other similar paper as to the age of the child, issued under the laws of that State and not inconsistent with the provisions of this Act, shall have the same force and effect as a certificate herein provided for.

SEC. 6. That the word "person" as used in this Act shall be construed to include any individual or corporation or the members of any partnership or other unincorporated association. The term "ship or deliver for shipment in interstate or foreign commerce" as used in this Act means to transport or to ship or deliver for shipment from any State or Territory or the District of Columbia to or through any other State or Territory or the District of Columbia or to any foreign country; and in the case of a dealer means only to transport or to ship or deliver for shipment from the State, Territory, or district of manufacture or production.

SEC. 7. That this Act shall take effect from and after one year from the date of its passage.

Approved, September 1, 1916.

RHONE CANAL

The new canal connecting the Rhone River with the sea of Marseilles, which was completed during the war, was opened May 7, 1916. The canal is seventy-seven kilometers long (48.1 miles). The cost of the canal was 90,000,000 francs (\$18,000,000), 35,000,000 francs (\$7,000,000) of which was given by the state and the remainder by the local government and the Chamber of Commerce. The most difficult work in the construction was the building of the tunnel, which is 7 kilometers (4.3 miles) long. The canal will accommodate 600-ton barges drawing 8 feet. It opens up the connection by way of the Rhone and the Saone to 540 kilometers (333 miles) inland with the main line waterways. The waterway will also give Marseilles a direct connection with Havre and the North Sea and form a part of the canal system connecting centers of France's productive resources in oil, coal and iron.

The canal and its tunnel had been under discussion for nearly one hundred years, but the actual work on them was not begun

until 1904. Most of the work on the canal was done since 1910, but much has been added to it since the outbreak of the war. The total length of the canal is sixty miles, and the five mile section under the mountain is seventy-five feet wide and seventy feet high, constituting what is declared to be the largest tunnel interior in the world.

SYNTHETIC DIAMONDS

It is reported that in research work being carried out at the Laboratory of Inorganic Chemistry at Geneva, Switzerland, a residue was obtained which, besides free carbons of varying weight, contained "very hard and very heavy white tetrahedral and octohedral crystals which burned without leaving ashes and were insoluble in aqua regia, possessing, as far as the analysis made up to the present show, all the properties of the diamond." Synthetic diamonds have been produced before, but the stones are too small and the process too costly for the discovery to be of much practical value.

THE FEDERAL FARM LOAN LAW

The Federal Farm Loan law was passed by Congress and approved July 17, 1916. Its purpose is "to provide capital for agricultural development, to create standard forms of investment based upon farm mortgage, to equalize rates of interest upon farm loans, to furnish a market for United States bonds, to create Government depositories and financial agents for the United States." Its administration is under the direction and control of the Federal Farm Loan Board.

THE FARM LOAN BOARD

The board consists of the following members, appointed by the President and approved by the Senate:

George W. Norris, Philadelphia, Pa., two years.
Charles E. Lobdell, Great Bend, Ind., four years.
Herbert Quick, Berkeley Springs, W. Va., six years.
W. S. A. Smith, Sioux City, Iowa, eight years.

The Secretary of the Treasury is Chairman ex officio. William W. Flannagan is secretary of the board. Mr. Norris is commissioner and chief executive officer. Each member's salary is \$10,000 per year and necessary traveling expenses.

FEDERAL LAND BANKS

Continental United States is divided into 12 Federal land bank districts, each district having a Federal land bank. Each bank before beginning business must have a capital of not less than \$750,000 which is to be divided into shares of \$5 each and may be subscribed for by anybody. The United States subscribes for all remaining shares of the \$750,000 that are untaken after thirty days.

Each share is entitled to dividends except those held by the United States Government.

The Federal land banks are depositories of public money. They may also be employed as financial agents of the Government.

NATIONAL FARM LOAN ASSOCIATION

Corporations, to be known as National Farm Loan Associations, may be organized by persons desiring to borrow money on farm mortgage securities. Ten or more persons, who are owners or about to become owners of farm land qualified as security for a mortgage loan, may unite to form such an association. The aggregate of the desired loan of the members must not be less than \$20,000.

Whenever any farm loan association shall desire to secure for any member, a loan on first mortgage, from the Federal land bank of its district, it shall subscribe for capital stock of the land bank to the amount of 5 per cent. of such loan, subscription to be paid in cash upon granting of the loan.

Capital Stock

Shares in the national farm loan association shall be of the par value of \$5 each. Every shareholder shall be entitled to one vote on each of his shares. The maximum number of votes which may be cast by any one shareholder shall be twenty.

No person other than a borrower shall be a member or shareholder. Any person desiring to borrow on farm land mortgage through a national farm loan association shall make application for membership and shall subscribe for shares of stock to an amount equal to 5 per cent. of the face of the desired loan, the subscription to be paid in cash upon granting of the loan.

Restrictions on Loans Based on First Mortgages

No Federal land bank shall make loans except upon the following terms and conditions:

1st. Loans shall be secured by duly recorded first mortgages on farm land within the land bank district in which the bank is situated.

2nd. Every such mortgage shall contain an agreement providing for the repayment of the loan on an amortization plan by means of a fixed number of annual or semiannual installments sufficient to cover, first, a charge on the loan, second, a charge for administration and profits at a rate not exceeding one per cent. per annum on the unpaid principal. These two rates combined shall constitute the interest rate on the mortgage; and, third, such amounts to be applied on the principal as will extinguish the debt within an agreed period, not less

than five years nor more than forty years. After five years from the date upon which a loan is made, additional payments in sums of \$25 or any multiple thereof, for the reduction of the principal, may be made on any regular installment date.

3rd. No loan on mortgage shall be made at a rate of interest exceeding six per cent. per annum, exclusive of amortization payments.

4th. Such loans may be made for the following purposes and no other:

(a) To provide for the purchase of land for agricultural uses.

(b) To provide for the purchase of equipment, fertilizers and live stock necessary for the proper and reasonable operation of the mortgaged farm.

(c) To provide buildings and for improvements of farm lands.

(d) To liquidate indebtedness of the owner of the land mortgaged, existing at the time of the organization of the first national farm loan association established in or for the county in which the land mortgage is situated, or indebtedness subsequently incurred for purposes mentioned in this section.

5th. No such loan shall exceed 50 per cent. of the value of the permanent, insured improvements thereon, said value to be ascertained by appraisal. In making appraisal, the value of the land for agricultural purposes shall be the basis and the earning power of the land shall be a principal factor.

6th. No such loan shall be made to any person who is not at the time, or shortly to become, engaged in the cultivation of the farm mortgaged. In case of the sale of the mortgaged land, the Federal land bank may permit said mortgage and the stock interests of the vendor to be assumed by the purchaser. In case of the death of the mortgager, his heir or heirs, or his legal representative shall have the option, within sixty days of such death, to assume the mortgage and stock interests of the deceased.

7th. The amount of loans to any one borrower shall in no case exceed a maximum of \$10,000, nor shall any loan be for a less sum than \$100.

8th. Every applicant for a loan under the terms of this Act shall make application on a form to be prescribed for that purpose by the Federal Farm Loan Board, and such applicant shall state the objects to which the proceeds of said loan are to be applied, and shall afford such other information as may be required.

9th. Every borrower shall pay simple interest on defaulted payments at the rate of eight per cent. per annum, and by express covenant in his mortgage deed shall undertake to pay when due all taxes, liens, judgments, or assessments which may be lawfully assessed against the land mortgaged. Taxes, etc., not paid when due, and paid by the mortgagee, shall become a part of the mortgage debt and shall bear simple interest at the rate of eight per cent. per annum. Every borrower shall undertake to keep insured to the satisfaction of the Federal Farm Loan Board all buildings the value of which was a factor in determining the amount of the loan. Insurance shall be made payable to the mortgagee as its interest may appear at time of loss, and, at the option of the mortgagor and subject to general regulations of the Federal Farm Loan Board, sums so received may be used to pay for reconstruction of the buildings destroyed.

10th. Every borrower who shall be granted a loan under the provisions of this Act shall enter into an agreement, in form and under conditions to be prescribed by the Federal Farm Loan Board, that if the whole or any portion of his loan shall be expended for purposes other than those specified in his original application, or if the borrower shall be in default in respect to any condition or covenant of the mortgage, the whole of said loan shall, at the option of the mortgagee, become due and payable forthwith. The borrower may use part of said loan to pay for his stock in the farm loan association, and the land bank holding such mortgage may permit said loan to be used for any purpose specified.

11th. That no loan or the mortgage securing the same shall be impaired or invalidated by reason of the exercise of any power by any Federal land bank or national farm loan association in excess of the powers herein granted or any limitations thereon.

Funds transmitted to farm loan associations by Federal land banks to be loaned to its members shall be in current funds, or farm loan bonds, at the option of the borrower.

The Federal land bank shall charge applicants for loans, rea-

sonable fees not exceeding the actual cost of appraisal and determination of title. Legal fees and recording charges imposed by law in the State where the land to be mortgaged is located, may also be included in the preliminary costs of negotiating loans. The borrower may pay such fees, making the loan to advance same, in which case the expenses shall be made a part of the face of the loan and paid off in amortization payments. Such addition shall not be permitted to increase said loan above the limitations.

AGENTS OF FEDERAL LAND BANKS

Whenever, after this Act shall have been in effect one year, it shall appear to the Federal Farm Loan Board that national farm loan associations have not been formed, and are not likely to be formed, in any locality, because of peculiar local conditions, said board may, in its discretion, authorize Federal land banks to make loans on farm lands through agents approved by said board.

Such loans shall be subject to the same conditions and restrictions as if the same were made through national farm loan associations.

No agent other than a duly incorporated bank, trust company, mortgage company, or savings institution, chartered by the State in which it has its principal office, shall be employed under the provisions of this section.

Federal land banks may pay to such agents the actual expense of appraising the land offered as security for a loan, examining and certifying the title thereof, and making, and recording the mortgage papers; and in addition may allow said agents not to exceed one-half of one per cent. per annum upon the unpaid principal of said loan, such commission to be deducted from dividends payable to the borrower on his stock in the Federal land bank.

Actual expenses paid to agents under the provisions of this section shall be added to the face of the loan and paid off in amortization payments.

GOVERNMENT DEPOSITS

The Secretary of the Treasury is authorized, in his discretion, upon the request of the Federal Farm Loan Board, to make deposits for the temporary use of any Federal land bank, out of any money in the Treasury not otherwise appropriated. Such Federal land bank shall issue to the Secretary of the Treasury a certificate of indebtedness for any such deposit, bearing a rate of interest not to exceed the current rate charged for other Government deposits, to be secured by farm loan bonds or other collateral, to the satisfaction of the Secretary of the Treasury. Any such certificate shall be redeemed and paid by such land bank at the discretion of the Secretary of the Treasury. The aggregate of all sums so deposited by the Secretary of the Treasury shall not exceed the sum of \$6,000,000 at any one time.

PHILIPPINE GOVERNMENT LAW

Congress passed a law, on August 18, 1916, declaring "the purpose of the people of the United States as to the future political status of the Philippine Islands, and providing a more autonomous government for those islands." The law was approved by President Wilson on August 29, 1916.

The interesting features of the law are as follows:

No law shall be enacted in the Philippine Islands which shall deprive any person of life, liberty, or property without due process of law, or deny to any person therein, the equal protection of the laws. Private property shall not be taken for public use without just compensation.

No law, granting a title of nobility shall be enacted, and no person holding any office of profit or trust in said islands shall, without the consent of the Congress of the United States, accept any present, emolument, office, or title of any kind whatever from any king, queen, prince, or foreign State.

Statutory laws of the United States hereafter enacted, shall not apply to the Philippine Islands, except when they specifically so provide.

All property and rights, which may have been acquired in the islands by the United States, except such property as has been or shall be designated by the President of the United States for military or other reservations of the United States Government, are placed under the control of the government of the islands, to be administered or disposed of, for the benefit of the inhabitants thereof, and the Philippine Legislature shall have power to legislate with respect to all such matters as it may deem advisable. Acts of the Legislature, with reference to land of the public domain, timber, and mining, hereafter enacted, shall not have the force of law until approved by the President of the United States. Upon the approval of such an act by the Governor General, it shall be transmitted to the President of the United States, and he shall approve or disapprove the same within six months after its submission for his approval, and if not disapproved within such time it shall become a law the same as if it had been specifically approved. Lands in the Philippine Islands which have been or may be reserved for any public purpose of the United States, and, being no longer required for the purpose for which reserved, may be, by order of the President, placed under the control of the government of said islands. This order shall be regarded as effectual to give the government of said islands full control and power to administer and dispose of such lands for the benefit of the inhabitants.

While this Act provides that the Philippine government shall have the authority to enact a tariff law the trade relations between the islands and the United States shall continue to be governed exclusively by laws of the Congress of the United States. Tariff acts or acts amendatory to the tariff of the Philippine Islands or any act of the Philippine Legislature affecting immigration or the currency or coinage laws shall not be-

come laws until they shall receive the approval of the President of the United States.

No export duties shall be levied or collected on exports from the Philippine Islands, but taxes and assessments on property and license fees for franchises and internal taxes may be imposed for the purposes of the Philippine government, to protect the public credit.

The entire indebtedness of the Philippine government, shall not exceed at any one time the sum of \$15,000,000; exclusive of those obligations known as friar land bonds, nor that of any Province or municipality a sum in excess of seven per cent. of the aggregate tax valuation of its property at any one time.

General legislative powers shall be vested in a Legislature which shall consist of the senate and the house of representatives. The two houses shall be designated "The Philippine Legislature." Until the Philippine Legislature shall have been organized the existing Philippine Legislature shall have all legislative authority herein granted to the government of the Philippine Islands, except such as may now be within the exclusive jurisdiction of the Philippine Commission, which is so continued until the organization of the Legislature. When the Philippine Legislature shall have been organized, the exclusive legislative jurisdiction and authority exercised by the Philippine Commission shall thereafter be exercised by the Philippine Legislature.

The members of the Senate of the Philippines, shall be elected for terms of six and three years, by the qualified electors of the Philippines. Each of the senatorial districts shall have the right to elect two senators.

The members of the house of representatives shall be elected triennially. Each of the representative districts shall have the right to elect one representative. The members of the present assembly elected on the first Tuesday in June, 1916, shall be the members of the house of representatives from their respective districts for the term expiring in 1919.

At the first election held, pursuant to this act, the qualified electors shall be those having the qualifications of voters under the present law, and all officers elected by the people shall be as follows:

Every male person who is not a citizen or subject of a foreign power twenty-one years of age or over (except insane and feeble-minded persons and those convicted of an infamous offense since August 13, 1898), who shall have been a resident of the Philippines for one year and of the municipality in which he shall offer to vote for six months next preceding the day of voting, and who is comprised within one of the following classes:

(a) Those who under existing law are legal voters and have exercised the right of suffrage.

(b) Those who own real property to the value of 500 pesos, or who annually pay 30 pesos or more of the established taxes.

(c) Those who are able to read and write either Spanish, English, or a native language.

The Philippine Islands shall be divided into twelve senate, and ninety representative districts. At the first meeting of the Philippine Legislature there shall be chosen by the Legislature two Resident Commissioners to the United States, who shall hold their office for a term of three years beginning with the fourth day of March following their election. No person shall be eligible to election as Resident Commissioner who is not a bona fide elector of said islands and who does not owe allegiance to the United States and who is not more than thirty years of age and who does not read and write the English language.

The supreme executive power shall be vested in an executive officer, whose official title shall be "The Governor General of the Philippine Islands." He shall be appointed by the President, with the consent of the Senate of the United States and hold his office at the pleasure of the President. He shall reside in the Philippines during his official incumbency and maintain his office at the seat of government.

He shall have general supervision and control of all of the departments and bureaus of the Philippines, and shall be commander in chief of all locally created armed forces and militia. He is hereby vested with the exclusive power to grant pardons and reprieves and remit fines, and may veto any legislation enacted. He shall submit, within ten days of the opening of each regular session of the Philippine Legislature, a budget of receipts and expenditures, which shall be the basis of the annual appropriation bill. He shall be responsible for the faithful execution of the laws of the Philippine Islands and of the United States within the islands, and whenever it becomes necessary he may call upon the commanders of the military and naval forces of the United States in the islands, or call out the militia or other locally created armed forces, to prevent or suppress lawless violence, invasion, or rebellion; and he may, when the public safety requires it, suspend the privileges of the writ of habeas corpus, or place the islands, or any part thereof, under martial law. Whenever the Governor General shall exercise this authority, he shall at once notify the President of the United States thereof, together with the attending facts and circumstances, and the President shall have power to modify or vacate the action of the Governor General. He shall annually and at such other times as he may be required make such official report of the transactions of the government of the Philippine Islands to an executive department of the United States to be designated by the President, and his said annual report shall be transmitted to the Congress of the United States; and he shall perform such additional duties and functions as may in pursuance of law be delegated or assigned to him by the President.

The executive departments of the Philippine government shall continue as now authorized by law until otherwise provided by the Philippine Legislature. When the Philippine Legislature shall convene and organize, the Philippine Commission, as such, shall cease and determine, and the members thereof shall vacate their offices as members of said commission. The heads of executive departments shall continue to exercise their executive functions until the heads of departments provided by the Philippine Legislature are appointed and qualified.

All executive functions of the government must be directly

under the Governor General or within one of the executive departments under the supervision and control of the Governor General. There is to be established a bureau, to be known as the Bureau of Non-Christian tribes, which shall be embraced in one of the executive departments to be designated by the Governor General, and shall have general supervision over the public affairs of the inhabitants of the territory represented in the Legislature by appointive senators and representatives.

There shall be appointed by the President, with the consent of the United States Senate, a vice governor of the Philippine Islands, who shall have all of the powers of the Governor General in the case of a vacancy or temporary removal or absence or disability of the Governor General, and the said vice governor shall be the head of the executive department, known as the department of public instruction, which shall include the bureau of education and the bureau of health, and he may be assigned such other executive duties as the Governor General may designate.

The President may designate the head of an executive department to act as Governor General and perform all his duties, in case of a vacancy or absence of the Governor General and the vice governor.

An auditor shall be appointed by the President, who shall audit and settle all accounts pertaining to receipts of all branches of the Philippine government.

At the close of each fiscal year his accounts shall be examined by several auditors of the United States and the Comptroller of the United States Treasury. The auditor shall then submit to the Governor General and the Secretary of War an annual report.

The chief justice and associate justices of the Supreme Court shall be appointed by the President, with consent of the Senate of the United States. The judges of the court of first instance shall be appointed by the Governor General, with the consent of the Philippine Senate. The admiralty jurisdiction of the Supreme Court and courts of first instance shall not be changed except by Act of Congress.

The Supreme Court of the United States shall have jurisdiction to review, reverse, modify, or affirm the final judgments and decrees of the Supreme Court of the Philippine Islands in all actions, and proceedings now pending therein or hereafter determined thereby in which the Constitution or any statute, treaty or privilege of the United States is involved, or in causes in which the value in controversy exceeds \$25,000, or in which the title or possession of real estate exceeding in value the sum of \$25,000, and such final judgments or decrees may and can be reviewed, reversed, modified, or affirmed by said Supreme Court of the United States on appeal or writ of error by the party aggrieved within the same time, in the same manner, as far as applicable, as the final judgments and decrees of the district courts of the United States.

The annual salaries of the following-named officials appointed by the President shall be: The Governor General, \$18,000; in addition thereto he shall be entitled to the occupancy of the buildings heretofore used by the chief executive of the Philippines, free of rental; vice governor, \$10,000; chief justice of the Supreme Court, \$8,000; associate justices of the Supreme Court, \$7,500 each; auditor, \$6,000; deputy auditor, \$3,000.

FEDERAL AID ROAD ACT

An act to provide that the United States shall aid the States in the construction of rural post roads, was passed by Congress and made a law, when approved by President Wilson on July 11, 1916.

SECTION 1. The Secretary of Agriculture is authorized to cooperate with the States, through their respective State highway departments, in the construction of rural post roads. They shall agree upon the roads to be constructed therein and the character and method of construction. All roads constructed under the provisions of this Act shall be free from tolls of all kinds.

SEC. 2. For the purpose of this Act the term "rural post road" shall be construed to mean any public road over which the United States mails are transported, excluding every street and road in a place having a population, as shown by the latest available Federal census, of two thousand five hundred or more, except that portion of any such street or road along which the houses average more than two hundred feet apart; the term "State highway department" shall include any department of

another name, commission, or official, of a State empowered, under its laws, to exercise the functions ordinarily exercised by a State highway department; the term "construction" shall include reconstruction and improvement of roads; "properly maintained" as used herein shall mean the making of needed repairs and the preservation of a reasonably smooth surface considering the type of the road; but shall not be held to include extraordinary repairs, nor reconstruction; necessary bridges and culverts shall be deemed parts of the respective roads.

SEC. 3. There is hereby appropriated, for the fiscal year ending June thirtieth, nineteen hundred and seventeen, the sum of \$5,000,000; for the fiscal year ending June thirtieth, nineteen hundred and eighteen, the sum of \$10,000,000; for the fiscal year ending June thirtieth, nineteen hundred and nineteen, the sum of \$15,000,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty, the sum of \$20,000,000; and for the fiscal year ending June thirtieth, nineteen hundred and twenty-one, the sum of \$25,000,000. In States where the constitution prohibits it from engaging in any work of internal

improvements, the amount of the appropriation to such State, shall be turned over to the highway department of the State or to the governor, to be expended under the provisions of this Act and under the rules and regulations of the Department of Agriculture, when any number of counties in such State shall appropriate or provide the proportion or share needed to be raised in order to entitle such State to its part of the appropriation.

Sec. 4. The Secretary of Agriculture shall apportion the appropriation for each fiscal year among the several States in the following manner: One-third in the ratio which the area of each State bears to the total area of all the States; one-third in the ratio which the population of each State bears to the total population of all the States, as shown by the latest available Federal census; one-third in the ratio which the mileage of rural delivery routes and star routes in each State bears to the total in all the States, at the close of the next preceding fiscal year, as shown by the certificate of the Postmaster General.

Sec. 5. Within sixty days after the approval of this Act the Secretary of Agriculture shall certify to the Secretary of the Treasury and to each State highway department and to the governor of each State having no State highway department the sum which he has estimated to be deducted for administering the provisions of this Act and the sum which he has apportioned to each State for the fiscal year ending June thirtieth, nineteen hundred and seventeen, and on or before January twentieth next preceding the commencement of each succeeding fiscal year shall make like certificates for such fiscal year.

Sec. 6. Any State desiring to avail itself of the benefits of this Act shall, by its State highway department, submit to the Secretary of Agriculture project statements setting forth proposed construction of any rural post road or roads therein. If the Secretary of Agriculture approve a project, the State highway department shall furnish to him such surveys, plans, specifications, and estimates therefor as he may require. The Secretary of Agriculture shall approve only such projects as may be substantial in character and the expenditure of funds hereby authorized shall be applied only to such improvements. Items included for engineering, inspection, and unforeseen contingencies shall not exceed ten per cent. of the total estimated cost of the work. If he approve the plans, etc., he shall notify the State highway department and immediately certify the fact to the Secretary of the Treasury. The Secretary of the Treasury shall thereupon set aside the share of the United States, which shall not exceed fifty per cent. of the total estimated cost thereof. No payment of any money shall be made until statement of the project, and the plans, specifications, and estimates therefor, shall have been submitted to and approved by the Secretary of Agriculture.

When the Secretary of Agriculture shall find that any project approved by him has been constructed in compliance with said plans and specifications he shall cause to be paid to the proper authority of the State the amount set aside for the project. The Secretary of Agriculture may, in his discretion, from time to time make payments on said construction as the same progresses; no such payment to be in excess of \$10,000 per mile, exclusive of the cost of bridges of more than twenty feet clear span. The construction work and labor in each State shall be done in accordance with its laws, and under the direct supervision of the State highway department, subject to the inspection and approval of the Secretary of Agriculture.

The Secretary of Agriculture and the State highway department of each State may jointly determine at what times, and in what amounts, payments, as work progresses, shall be made.

Sec. 7. To maintain the roads constructed shall be the duty of the States, or their civil subdivisions, according to the laws of the several States. If at any time the Secretary of Agriculture shall find that any road in any State constructed under the provisions of this Act is not being properly maintained he shall give notice of such fact to the highway department of such State and if within four months from the receipt of said notice the road has not been put in a proper condition of maintenance, then the Secretary of Agriculture shall thereafter refuse to approve any project for road construction in said State, or the civil subdivision thereof, until it has been put in a condition of proper maintenance.

Sec. 8. There is hereby appropriated and made available until expended, the sum of \$1,000,000 for the fiscal year ending June thirtieth, nineteen hundred and seventeen, and each fiscal year thereafter, for ten years, in all \$10,000,000, to be available until expended under the supervision of the Secretary of Agriculture, upon request from the proper officers of the State,

Territory, or county, for the survey, construction, and maintenance of roads and trails within or only partly within the national forests, when necessary for the use and development of resources upon which communities within and adjacent to the national forests are dependent. The State or county shall enter into a cooperative agreement with the Secretary of Agriculture for the survey, construction, and maintenance of such roads or trails upon a basis equitable to both the State and the United States. The aggregate expenditures in any State shall not exceed ten per centum of the value, as determined by the Secretary of Agriculture, of the timber and forage resources which are or will be available for income upon the national forest lands within the respective county or counties wherein the roads or trails will be constructed; and the Secretary of Agriculture shall make annual report to Congress of the amounts expended hereunder.

APPORTIONMENT TO STATES UNDER FEDERAL AID ROAD ACT

For the Fiscal Year 1917

The amounts apportioned to each State for the fiscal year 1917 are set forth in the following table:

State	Miles	Percentage shown by certificate of Postmaster General as of June 30, 1916	Percentage apportionment	Sum apportioned
Alabama	29,615	2.39111	2.14740	\$ 104,148.90
Arizona	3,096	.24997	1.41265	68,513.52
Arkansas	20,245	1.63458	1.70493	82,698.10
California	18,823	1.51976	3.11472	151,063.92
Colorado	10,781	.87045	1.72557	83,690.14
Connecticut	6,721	.54265	.64104	31,090.44
Delaware	2,566	.20718	.16875	8,184.37
Florida	8,706	.70292	1.15415	55,976.27
Georgia	43,397	3.50386	2.76968	134,329.48
Idaho	7,594	.61314	1.24667	60,463.50
Illinois	69,860	5.64048	4.55518	220,926.23
Indiana	52,619	4.24844	2.79892	135,747.62
Iowa	58,943	4.75904	3.01393	146,175.60
Kansas	53,240	4.29858	2.95273	143,207.40
Kentucky	27,113	2.18910	2.00973	97,471.91
Louisiana	9,458	.76364	1.39123	67,474.66
Maine	13,566	1.09531	.99900	48,451.50
Maryland	11,194	.90380	.90819	44,047.22
Massachusetts	7,698	.62153	1.52270	73,850.95
Michigan	49,981	4.03545	3.00585	145,783.72
Minnesota	46,384	3.74503	2.93596	142,394.06
Mississippi	24,646	1.98991	1.83311	88,905.84
Missouri	57,108	4.61088	3.49939	169,720.41
Montana	10,065	.81264	2.02654	98,287.19
Nebraska	33,964	2.74224	2.20146	106,770.81
Nevada	2,935	.23697	1.32780	64,398.30
New Hampshire	6,444	.52029	.43292	20,996.62
New Jersey	7,708	.62234	1.22088	59,212.68
New Mexico	5,716	.46151	1.62346	78,737.81
New York	48,773	3.93792	5.16949	250,720.27
North Carolina	36,358	2.93553	2.35839	114,381.92
North Dakota	21,548	1.73978	1.56996	76,143.06
Ohio	61,968	5.00328	3.85372	186,905.42
Oklahoma	37,145	2.99908	2.37400	115,139.00
Oregon	11,621	.93828	1.62242	78,687.37
Pennsylvania	54,638	4.41146	4.75555	230,644.17
Rhode Island	1,093	.08825	.24053	11,665.71
South Carolina	21,851	1.76424	1.48057	71,807.64
South Dakota	22,362	1.80550	1.66899	80,946.02
Tennessee	40,731	3.28861	2.35368	114,153.48
Texas	62,181	5.02048	6.01913	291,927.81
Utah	3,806	.30730	1.74233	56,950.15
Vermont	8,777	.70865	.47102	22,844.47
Virginia	31,045	2.50656	2.05486	99,601.71
Washington	11,350	.91640	1.48215	71,884.28
West Virginia	14,417	1.16402	1.09836	53,270.46
Wisconsin	43,854	3.54076	2.64662	128,361.07
Wyoming	4,844	.39110	1.26179	61,196.82
Total	1,238,548	100.00000	100.00000	4,850,000.00

FEDERAL MIGRATORY BIRD LAW OPEN SEASONS

(Specially Compiled by American Game Protective Association—Both dates inclusive and from sunrise to sunset only)

	Waterfowl, Coots, and Gallinules	Rails, other than Coots and Gallinules	Black-breasted and Golden Plover and Greater and Lesser Yellow-legs	Jacksnipe or Wilson Snipe	Woodcock
Alabama.....	Nov. 1—Jan. 31..	Sept. 1—Nov. 30..	Nov. 1—Jan. 31..	Nov. 1—Jan. 31..	Nov. 1—Dec. 31
Arizona.....	Oct. 16—Jan. 31..	Sept. 1—Nov. 30..	Sept. 1—Dec. 15..	Oct. 16—Jan. 31..	Nov. 1—Dec. 31
Arkansas.....	Nov. 1—Jan. 31..	Sept. 1—Nov. 30..	Sept. 1—Dec. 15..	Nov. 1—Jan. 31..	Nov. 1—Dec. 31
California.....	Oct. 16—Jan. 31..	Closed until 1918.	Closed until 1918.	Oct. 16—Jan. 31..	Nov. 1—Dec. 31
Colorado.....	Sept. 7—Dec. 20..	Sept. 1—Nov. 30..	Sept. 1—Dec. 15..	Sept. 7—Dec. 20..	Oct. 1—Nov. 30
Connecticut.....	Oct. 1—Jan. 15..	Sept. 1—Nov. 30..	Aug. 16—Nov. 30..	Oct. 1—Jan. 15..	Oct. 1—Nov. 30
Delaware.....	Nov. 1—Jan. 31..	Sept. 1—Nov. 30..	Aug. 16—Nov. 30..	Nov. 1—Jan. 31..	Nov. 1—Dec. 31
District of Columbia.....	Nov. 1—Jan. 31..	Sept. 1—Nov. 30..	Aug. 16—Nov. 30..	Nov. 1—Jan. 31..	Nov. 1—Dec. 31
Florida.....	Nov. 1—Jan. 31..	Sept. 1—Nov. 30..	Nov. 1—Jan. 31..	Nov. 1—Jan. 31..	Nov. 1—Dec. 31
Georgia.....	Nov. 1—Jan. 31..	Sept. 1—Nov. 30..	Nov. 1—Jan. 31..	Nov. 1—Jan. 31..	Nov. 1—Dec. 31
Idaho.....	Sept. 7—Dec. 20..	Sept. 1—Nov. 30..	Sept. 7—Dec. 20..	Sept. 7—Dec. 20..	Oct. 1—Nov. 30
Illinois.....	Sept. 16—Dec. 31..	Sept. 1—Nov. 30..	Sept. 1—Dec. 15..	Sept. 16—Dec. 31..	Closed until 1918
Indiana.....	Sept. 16—Dec. 31..	Sept. 1—Nov. 30..	Sept. 1—Dec. 15..	Sept. 16—Dec. 31..	Oct. 1—Nov. 30
Iowa.....	Sept. 16—Dec. 31..	Sept. 1—Nov. 30..	Sept. 1—Dec. 15..	Sept. 16—Dec. 31..	Oct. 1—Nov. 30
Kansas.....	Sept. 16—Dec. 31..	Sept. 1—Nov. 30..	Sept. 1—Dec. 15..	Sept. 16—Dec. 31..	Oct. 1—Nov. 30
Kentucky.....	Sept. 16—Dec. 31..	Sept. 1—Nov. 30..	Sept. 1—Dec. 15..	Sept. 16—Dec. 31..	Closed until 1918
Louisiana.....	Nov. 1—Jan. 31..	Nov. 1—Jan. 31..	Nov. 1—Jan. 31..	Nov. 1—Jan. 31..	Nov. 1—Dec. 31
Maine.....	Sept. 16—Dec. 31..	Sept. 1—Nov. 30..	Aug. 16—Nov. 30..	Sept. 16—Dec. 31..	Oct. 1—Nov. 30
Maryland.....	Nov. 1—Jan. 31..	Sept. 1—Nov. 30..	Aug. 16—Nov. 30..	Nov. 1—Jan. 31..	Nov. 1—Dec. 31
Massachusetts.....	Sept. 16—Dec. 31..	Sept. 1—Nov. 30..	Aug. 16—Nov. 30..	Sept. 16—Dec. 31..	Oct. 1—Nov. 31
Michigan.....	Sept. 16—Dec. 31..	Sept. 1—Nov. 30..	Sept. 1—Dec. 15..	Sept. 16—Dec. 31..	Oct. 1—Nov. 30
Minnesota.....	Sept. 7—Dec. 20..	Sept. 1—Nov. 30..	Sept. 7—Dec. 20..	Sept. 7—Dec. 20..	Oct. 1—Nov. 30
Mississippi.....	Nov. 1—Jan. 31..	Sept. 1—Nov. 30..	Nov. 1—Jan. 31..	Nov. 1—Jan. 31..	Nov. 1—Dec. 31
Missouri.....	Sept. 16—Dec. 31..	Sept. 1—Nov. 30..	Sept. 1—Dec. 15..	Sept. 16—Dec. 31..	Closed until 1918
Montana.....	Sept. 7—Dec. 20..	Sept. 1—Nov. 30..	Sept. 7—Dec. 20..	Sept. 7—Dec. 20..	Oct. 1—Nov. 30
Nebraska.....	Sept. 16—Dec. 31..	Sept. 1—Nov. 30..	Sept. 1—Dec. 15..	Sept. 16—Dec. 31..	Oct. 1—Nov. 30
Nevada.....	Oct. 1—Jan. 15..	Sept. 1—Nov. 30..	Sept. 1—Dec. 15..	Oct. 1—Jan. 15..	Oct. 1—Nov. 30
New Hampshire.....	Sept. 16—Dec. 31..	Sept. 1—Nov. 30..	Aug. 16—Nov. 30..	Sept. 16—Dec. 31..	Oct. 1—Nov. 30
New Jersey.....	Oct. 1—Jan. 15..	Sept. 1—Nov. 30..	Aug. 16—Nov. 30..	Oct. 1—Jan. 15..	Oct. 1—Nov. 30
New Mexico.....	Oct. 16—Jan. 31..	Sept. 1—Nov. 30..	Sept. 1—Dec. 15..	Oct. 16—Jan. 31..	Nov. 1—Dec. 31
New York.....	Sept. 16—Dec. 31..	Sept. 1—Nov. 30..	Aug. 16—Nov. 30..	Sept. 16—Dec. 31..	Oct. 1—Nov. 30
(Long Island).....	Oct. 1—Jan. 15..	Sept. 1—Nov. 30..	Aug. 16—Nov. 30..	Oct. 1—Jan. 15..	Oct. 1—Nov. 30
North Carolina.....	Nov. 1—Jan. 31..	Sept. 1—Nov. 30..	Sept. 1—Dec. 15..	Nov. 1—Jan. 31..	Nov. 1—Dec. 31
North Dakota.....	Sept. 7—Dec. 20..	Sept. 1—Nov. 30..	Sept. 7—Dec. 20..	Sept. 7—Dec. 20..	Oct. 1—Nov. 30
Ohio.....	Sept. 16—Dec. 31..	Sept. 1—Nov. 30..	Sept. 1—Dec. 15..	Sept. 16—Dec. 31..	Oct. 1—Nov. 30
Oklahoma.....	Oct. 16—Jan. 31..	Sept. 1—Nov. 30..	Sept. 1—Dec. 15..	Oct. 16—Jan. 31..	Nov. 1—Dec. 31
Oregon.....	Oct. 1—Jan. 15..	Sept. 1—Nov. 30..	Oct. 1—Dec. 15..	Oct. 1—Jan. 15..	Oct. 1—Nov. 30
Pennsylvania.....	Oct. 1—Jan. 15..	Sept. 1—Nov. 30..	Sept. 1—Dec. 15..	Oct. 1—Jan. 15..	Oct. 1—Nov. 30
Rhode Island.....	Oct. 1—Jan. 15..	Sept. 1—Nov. 30..	Aug. 16—Nov. 30..	Oct. 1—Jan. 15..	Oct. 1—Nov. 30
South Carolina.....	Nov. 1—Jan. 31..	Sept. 1—Nov. 30..	Nov. 1—Jan. 31..	Nov. 1—Jan. 31..	Nov. 1—Dec. 31
South Dakota.....	Sept. 7—Dec. 20..	Sept. 1—Nov. 30..	Sept. 7—Dec. 20..	Sept. 7—Dec. 20..	Oct. 1—Nov. 30
Tennessee.....	Nov. 1—Jan. 31..	Sept. 1—Nov. 30..	Sept. 1—Dec. 15..	Nov. 1—Jan. 31..	Nov. 1—Dec. 31
Texas.....	Oct. 16—Jan. 31..	Sept. 1—Nov. 30..	Nov. 1—Jan. 31..	Oct. 16—Jan. 31..	Nov. 1—Dec. 31
Utah.....	Oct. 1—Jan. 15..	Sept. 1—Nov. 30..	Closed until 1918.	Oct. 1—Jan. 15..	Oct. 1—Nov. 30
Vermont.....	Sept. 16—Dec. 31..	Closed until 1918.	Sept. 1—Dec. 15..	Sept. 16—Dec. 31..	Oct. 1—Nov. 30
Virginia.....	Nov. 1—Jan. 31..	Sept. 1—Nov. 30..	Aug. 16—Nov. 30..	Nov. 1—Jan. 31..	Nov. 1—Dec. 31
Washington.....	Oct. 1—Jan. 15..	Sept. 1—Nov. 30..	Oct. 1—Dec. 15..	Oct. 1—Jan. 15..	Oct. 1—Nov. 30
West Virginia.....	Sept. 16—Dec. 31..	Sept. 1—Nov. 30..	Sept. 1—Dec. 15..	Sept. 16—Dec. 31..	Oct. 1—Nov. 30
Wisconsin.....	Sept. 7—Dec. 20..	Sept. 1—Nov. 30..	Sept. 7—Dec. 20..	Sept. 7—Dec. 20..	Oct. 1—Nov. 30
Wyoming.....	Sept. 7—Dec. 20..	Sept. 1—Nov. 30..	Sept. 7—Dec. 20..	Sept. 7—Dec. 20..	Oct. 1—Nov. 30

* No open seasons on migratory insectivorous birds except on reed-birds or rice-birds in states marked * where open season is Sept. 1-Oct. 31. Band-tailed pigeons, little brown, sand-hill, whooping-cranes, wood ducks, swans, curlew, willet, and all shore birds except as specified, closed all states to Sept. 1, 1918.

NEW BIRD TREATY

The United States Senate on Aug. 29, 1916, ratified the treaty with Canada extending to all migratory birds the same protection on both sides of the Canadian border.

The treaty is an important supplement to the Federal law and provides, in effect, three principal things:

(1) That no bird important to agriculture because of insect destroying proclivities shall be shot at any time. (2) That no open season on any species of game birds shall extend for a longer period than three and one-half months. (3) That both countries shall so restrict open seasons on game birds as to prevent their being taken during the breeding season.

The Senate's action came as the result of a campaign waged incessantly for nearly three years by organizations of farmers, sportsmen, bird lovers and conservationists generally under the leadership of the American Game Protective Association of New York, the sportsmen's national organization. The ratification of the treaty means that this country now possesses the most advanced and effective legal protection for wild life of any on the globe.

It will secure protection all over the North American continent for some 1,022 species and sub-species of birds, and the law is of prime importance to farmers, for it means that insectivorous birds will at last get the protection they deserve.

Permits, however, will be issued for collecting birds for scientific purposes in accordance with the laws and regulations in force in the respective States and the District of Columbia.

The following are considered migratory game birds:

(a) Anatidae or waterfowl, including brant, wild ducks, geese, and swans.

(b) Gruidae or cranes, including little brown, sandhill, and whooping cranes.

(c) Rallidae or rails, including coots, gallinules, and sora and other rails.

(d) Limcolae or shore birds, including avocets, curlew, dowitchers, godwits, knots, oyster catchers, phalaropes, plover, sandpipers, snipe, stilts, surf birds, turnstones, willet, woodcock, and yellowlegs.

(e) Columbidae or pigeons, including doves and wild pigeons.

The following are considered migratory insectivorous birds:

(f) Bobolinks, catbirds, chickadees, cuckoos, flickers, flycatchers, grosbeaks, hummingbirds, kinglets, martins, meadowlarks, nighthawks or bull bats, nuthatches, orioles, robins, shrikes, swallows, swifts, tanagers, titmice, thrushes, vireos, warblers, waxwings, whippoorwills, woodpeckers, and wrens, and all other perching birds which feed entirely or chiefly on insects.

THE CLAYTON LAW

The Clayton Trust Bill was passed by the 63rd Congress and approved October 15, 1914. Its purpose is to supplement existing laws against unlawful restraints and monopolies of trade and commerce within any state or territory or the District of Columbia, or any place under jurisdiction of the U. S., excepting the Philippine Islands. The more important provisions of this law are as follows:

Sec. 2. It is unlawful for any person engaged in commerce to discriminate in the price of any commodity sold, where the effect of such discrimination may be to substantially lessen competition or tend to create a monopoly in any line of commerce. This does not apply where the discrimination in price is on account of the difference in grade or quantity, or when made in good faith to meet competition, or where an allowance is made for transportation. Neither does it prevent persons from selecting their own customers in bona fide transactions and not in restraint of trade.

Sec. 4. Any person who shall be injured in his business by reason of anything forbidden in the Anti-Trust laws may sue therefor in the District Court in which the defendant resides or is found or has an agent without respect to the amount in controversy, and shall recover threefold the damages sustained by him and the cost of suit, including a reasonable attorney's fee.

Sec. 6. The labor of a human being is not a commodity or article of commerce. Nothing contained in the anti-trust laws shall be construed to forbid the existence and operation of labor, agricultural, or horticultural organizations, instituted for the purposes of mutual help, and not having capital stock or conducted for profit, or to forbid or restrain individual members of such organizations from lawfully carrying out the legitimate objects thereof; nor shall such organizations, or the members thereof, be held or construed to be illegal combinations or conspiracies in restraint of trade, under the anti-trust laws.

Sec. 7. No corporation engaged in commerce shall acquire stocks of another corporation also engaged in similar commerce where the effect may lessen competition or tend to create a monopoly. This does not apply to corporations purchasing stocks for investments only. Nor shall anything herein, prohibit any common carrier, subject to the laws to regulate commerce, from aiding in the construction of branches or short lines so located as to become feeders of the main line, or from owning stock of such branch lines nor to prevent them from acquiring and owning stock of an independent company, where there is no substantial competition.

Sec. 8. No person who is a director or other officer of a bank, banking association or trust company which has deposits, capital, surplus and undivided profits aggregating more than \$5,000,000 shall be eligible to be a director or other officer of

any other banking institution or trust company. This also applies to corporations aggregating more than \$1,000,000. This does not apply to mutual savings banks not having a capital stock represented by shares.

Sec. 9. Every director, officer or manager of any common carrier, who knowingly converts any of its money or property to his own or another's use shall be guilty of a felony and upon conviction shall be fined not less than \$500 or imprisoned for not less than one year or more than ten years or both.

Sec. 10. No common carrier engaged in commerce shall have any dealings in securities, supplies or other articles of commerce or shall trade or have any contracts for construction or maintenance of any kind to the amount of more than \$50,000 in the aggregate in any one year with another concern when the said common carrier has on its board of directors or as its president or any employee in the particular transaction, any person who is at the same time a director or employee or who has any substantial interest in such other concern, unless such dealings or purchases shall be made from the bidder whose bid is the most favorable to such common carrier. This is to be ascertained by competitive bidding prescribed by the Interstate Commerce Commission. No bid shall be received unless the name and the addresses of the officers, directors and general managers thereof accompanies the bid. Any person who shall prevent or attempt to prevent any one from bidding shall be punished. Any such common carrier having any such transactions shall within 30 days after making the same file with the Interstate Commerce Commission a full and detailed statement showing the manner of competitive bidding and who the bidders were, with their names and addresses. After investigation, if the commission have reasons to believe that the law has been violated, it shall transmit all papers and documents and its own views and findings to the Attorney-General. If the common carrier shall violate this section it shall be fined not more than \$25,000 and the person who knowingly constituted that violation shall be fined not exceeding \$5,000 or imprisoned for not more than one year or both.

Sec. 11. The authority to enforce compliance with sections 2, 7, and 8 is invested in the Interstate Commerce Commission where applicable to common carriers, in the Federal Reserve Board to banks, banking associations and trust companies, in the Federal Trade Commission to all other characters of commerce, to be exercised under the jurisdiction of the Circuit Court of Appeals; such proceedings shall be given precedence over other cases pending therein.

Sec. 25. No proceedings for contempt shall be instituted unless begun within one year from the date of the act complained of.

SHERMAN ANTI-TRUST LAW

Bill passed by the 51st congress and approved July 2, 1890.

Section 1. Every contract, combination in the form of trust or otherwise, or conspiracy in restraint of trade or commerce among the several states or with foreign nations, is hereby declared to be illegal. Every person who shall make any such contract or engage in any such combination or conspiracy shall be deemed guilty of a misdemeanor, and on conviction thereof, shall be punished by fine not exceeding \$5,000 or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

Sec. 2. Every person who shall monopolize or attempt to monopolize or combine or conspire with any person or persons to monopolize any part of the trade or commerce among the several states or with foreign nations shall be deemed guilty of a misdemeanor, and on conviction thereof shall be punished by fine not exceeding \$5,000 or by imprisonment not exceeding one year, or by both said punishments in the discretion of the court.

Sec. 3. Every contract, combination in form of trust or otherwise, or conspiracy in restraint of trade or commerce in any territory of the United States or of the District of Columbia, or in restraint of trade or commerce between any such territory and another, or between any such territory or territories and any state or states or the District of Columbia, or with foreign nations, or between the District of Columbia and any state or states or foreign nations, is hereby declared illegal. Every person who shall make any such contract or engage in any such combination or conspiracy shall be deemed guilty of a misdemeanor, and on conviction thereof shall be punished by fine not exceeding \$5,000 or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

Sec. 4. The several Circuit courts of the United States are hereby invested with jurisdiction to prevent or restrain violations of this act; and it shall be the duty of the several district attorneys of the United States, in their respective districts, under

the direction of the attorney-general, to institute proceedings in equity to prevent and restrain such violations. Such proceedings may be by way of petition setting forth the case and praying that such violation shall be enjoined or otherwise prohibited. When the parties complained of shall have been duly notified of such petition the court shall proceed, as soon as may be, to the hearing and determination of the case; and pending such petition and before final decree the court may at any time make such temporary restraining order or prohibition as shall be deemed just in the premises.

Sec. 5. Whenever it shall appear to the court before which any proceeding under section 4 of this act may be pending that the ends of justice require that other parties should be brought before the court, the court may cause them to be summoned, whether they reside in the district in which the court is held or not; and subpoenas to that end may be served in any district by the marshal thereof.

Sec. 6. Any property owned under any contract or by any combination or pursuant to any conspiracy (and being the subject thereof) mentioned in section 1 of this act and being in the course of transportation from one state to another or to a foreign country shall be forfeited to the United States and may be seized and condemned by like proceedings as those provided by law for the forfeiture, seizure and condemnation of property imported into the United States contrary to law.

Sec. 7. Any person who shall be injured in his business or property by any other person or corporation by reason of anything forbidden or declared unlawful by this act may sue therefor in any Circuit court of the United States in the district in which the defendant resides or is found, without respect to the amount in controversy, and shall recover threefold the damages by him sustained and the cost of suit, including a reasonable attorney's fee.

FEDERAL TRADE COMMISSION

"An act to create a Federal Trade Commission, to define its powers and duties, and for other purposes," approved September 26, 1914, provides for a commission consisting of five members. Further specific powers are conferred upon this commission by "An act to supplement existing laws against unlawful restraints and monopolies, and for other purposes" (the Clayton Act), approved October 15, 1914.

INVESTIGATION, PUBLICITY, AND RECOMMENDATION

The commission is authorized to require corporations subject to its jurisdiction to file reports, or written answers to specific questions regarding the organization and management of their business, or their relations to other corporations, partnerships, or individuals. Furthermore, the commission is authorized to classify such corporations, and to make rules and regulations for this purpose.

The commission is given also a general power of investigation in respect to such corporations and their relations to other corporations, individuals, associations, and partnerships.

Upon the direction of the President or either House of Congress, the commission is authorized to investigate and report concerning any alleged violations of the antitrust acts by any corporation.

It is also authorized to investigate trade conditions in foreign countries with respect to combinations or other conditions affecting the foreign trade of the United States.

If, in any suit in equity brought by the Government under the antitrust acts, upon the conclusion of the testimony the court is of the opinion that the complainant is entitled to relief, it may refer the matter to the commission as a master in chancery to ascertain and report an appropriate form of decree.

Whenever a final decree has been entered against any corporation in a suit to restrain violations of the antitrust acts, the commission is authorized to make an investigation of the manner in which the decree is carried out, and it is required to make such investigation upon the application of the Attorney General. In the latter case it is required to transmit a report of its findings and recommendations to the Attorney General, and may publish such report in its own discretion.

The commission is authorized to make public such portions of the information obtained by it in accordance with law as it shall deem expedient in the public interest, except trade secrets and the names of customers, and, further, to make annual and special reports to Congress with recommendations for legislation, and to provide for the publication of its reports and decisions. It is specially provided that any officer or employee of the commission who without its authority shall make public any information obtained shall be guilty of a misdemeanor and be punishable by fine and imprisonment.

COMPULSORY POWERS, PENALTIES, AND MISCELLANEOUS PROVISIONS

Any member of the commission may sign subpoenas, and members of the commission or the examiners of the commission may administer oaths and receive evidence.

In case of refusal to obey a subpoena the commission may invoke the aid of the courts of the United States, which may order compliance therewith, and on failure punish the delinquents for contempt. Moreover, upon application of the Attorney General, at the request of the commission, the courts have juris-

isdiction to issue writs of mandamus requiring any person or corporation to comply with the law or any order of the commission in pursuance thereof.

The commission is also authorized to take testimony by deposition.

No person is excused from testifying or producing evidence before the commission on the ground that it might tend to incriminate him or to subject him to penalty or forfeiture, but it is provided that no natural person shall be criminally prosecuted on account of any transaction concerning which he may testify or produce evidence, if furnished in obedience to a subpoena, except in case of perjury.

Penalties of fine and imprisonment are provided for those who neglect or refuse to answer any lawful inquiry in obedience to a subpoena or lawful requirement of the commission, and who falsify records, fail to keep proper records, or refuse the commission lawful access to the same, and penalty of fine for corporations which delay to file such reports as the commission may lawfully require, such fines to be recoverable by the United States in a civil suit.

Relations of the commission to legislative, judicial, and other executive departments.—The Federal Trade Commission is organized in a manner similar to that of the Interstate Commerce Commission, and its relations to the legislative, judicial, and other executive departments of the Government are defined in the law.

Like the Interstate Commerce Commission, it is made independent of any of the other executive departments. In addition to the general executive direction reposed by the Constitution and laws in the President, this law provides specifically that the commission shall, at his direction, investigate alleged violations of the antitrust acts by any corporation. In this connection it may be noted that the President is authorized to direct the several departments and bureaus of the Government to furnish the commission, upon request, all records and information in their possession relating to any corporation subject to this act. The commission may also be called upon to perform certain of its functions at the request of the Attorney General, namely, in investigating the execution of decrees against trusts and in making investigations and recommendations for bringing corporations alleged to be violating the antitrust acts in harmony with the law.

The law provides that either House of Congress may direct the commission to investigate and report the facts relating to any alleged violation of the antitrust acts by any corporation. It is also provided that the commission shall have power to make annual and special reports to Congress and recommendations for additional legislation, as well as reports regarding its investigations into conditions in foreign countries affecting the trade of the United States.

More important, however, are the relations of the commission to the judicial department, which has jurisdiction to review and enforce its orders respecting unfair methods of competition or violations of the Clayton Act, and to which the commission must apply for the enforcement of its compulsory powers.

The commission consists of the following members:

CHAIRMAN, Joseph E. Davies.

VICE CHAIRMAN, Edward N. Hurley.

William J. Harris, Will H. Parry,

investigations and reports as may be requested by them, and report to Congress each year.

The commission has the power to investigate the tariff relations between the United States and foreign countries, commercial treaties, preferential provisions, economic alliances, the effect of export bounties and preferential transportation rates, the volume of importations compared with domestic production and consumption, and conditions, causes, and effects relating to competition of foreign industries with those of the United States, including dumping and cost of production.

For the purposes of carrying this title into effect, the commission has the right to copy any document or record, pertinent to the subject-matter under investigation, in the possession of any person or concern, to summon witnesses, take testimony and to administer oaths. In appropriate matters, the commission acts in conjunction and cooperation with the Treasury Department, the Department of Commerce, the Federal Trade Commission, or any other departments, or independent establishments of the Government.

THE TARIFF COMMISSION

The Revenue Act approved September 8, 1916, created a tariff commission composed of six members, not more than three of the same political party. The salary of each commissioner is \$7,500 per annum.

DUTIES

The duty of the commission is to investigate the administration and fiscal and industrial effects of the customs laws of this country now in force or which may be hereafter enacted, the relations between the rates of duty on raw materials and finished products, the effects of ad valorem and specific duties and all questions relative to the arrangement of schedules and classification of articles in the customs law, and, in general, to investigate the operation of customs laws, including their relation to the Federal revenues, their effects upon the industries and labor of the country.

The commission shall put at the disposal of the President, the Committee on Ways and Means of the House of Representatives, and the Committee on Finance of the Senate, whenever requested, all information at its command, and make such

OPERATING RETURNS OF PRINCIPAL RAILWAYS OF UNITED STATES

Compiled from returns to the Interstate Commerce Commission for Fiscal Year ending June 30, 1916

Road	Average miles operated	Revenues	Expenses	Net revenue	Taxes	Income
EASTERN DISTRICT:						
Baltimore & Ohio	4,539.38	\$11,668,680	\$ 7,319,804	\$3,348,876	\$3,674,248	\$28,639,064
Bangor & Arcootook	631.56	3,775,806	2,385,958	1,389,848	155,964	1,233,182
Boston & Maine	2,301.05	52,075,427	36,197,958	15,877,469	1,986,267	13,888,578
Buffalo, Rochester & Pittsburgh	586.48	11,971,019	8,648,790	3,322,229	250,000	3,072,101
Central R. R. Co. of New Jersey	683.93	33,462,928	21,129,895	12,333,033	1,826,514	10,505,758
Chicago & Erie	269.56	7,820,770	4,803,462	3,017,328	264,862	2,752,866
Chicago, Indianapolis & Louisville	622.41	7,694,733	5,111,039	2,583,694	364,214	2,217,286
Cincinnati, Hamilton & Dayton	780.35	10,561,749	8,113,865	2,447,884	378,857	2,066,038
Cleveland, Cincinnati, Chicago & St. Louis	2,382.96	43,478,002	29,195,230	14,282,772	1,556,131	12,717,953
Delaware & Hudson	885.63	23,922,671	16,370,167	9,552,504	658,458	8,891,854
Delaware, Lackawanna & Western	956.54	49,335,739	29,511,905	19,823,834	2,210,734	17,609,604
Erie	1,987.84	65,115,459	42,638,484	22,476,975	2,104,882	20,333,154
Lehigh Valley	1,443.69	47,382,569	33,092,978	14,289,591	1,706,093	12,574,713
Maine Central	1,220.18	12,001,673	8,192,578	3,809,095	636,423	3,171,505
Michigan Central	1,803.26	41,884,593	27,845,935	14,038,658	1,633,936	12,398,101
New York Central	6,031.22	209,303,754	132,949,171	76,354,583	8,823,200	67,509,928
New York, Chicago & St. Louis	569.44	14,378,614	9,904,100	4,474,514	501,376	3,967,070
New York, New Haven & Hartford	2,004.62	76,311,653	51,078,358	25,233,295	2,856,255	22,371,280
New York, Ontario & Western	568.46	8,942,252	6,202,922	2,739,330	259,223	2,477,863
Pennsylvania Company	1,758.08	71,255,665	46,447,373	24,808,292	3,403,105	21,402,493
Pennsylvania R. R. Co.	4,541.04	220,113,358	155,278,979	64,834,379	7,839,321	56,949,999
Pere Marquette	2,251.47	21,210,053	14,530,425	6,679,628	626,275	6,045,025
Philadelphia & Reading	1,127.27	57,298,393	33,389,659	23,908,734	1,402,177	22,499,699
Pittsburgh, Cincinnati, Chicago & St. Louis	1,488.98	47,370,153	33,827,895	13,542,258	2,038,313	11,501,395
Rutland	468.11	3,875,098	2,638,094	1,237,004	204,897	1,032,091
Vandalia	917.23	12,486,643	9,370,575	3,116,068	449,587	2,665,024
Wabash	2,519.06	34,591,057	24,549,635	10,041,422	1,058,543	8,976,012
SOUTHERN DISTRICT:						
Atlanta, Birmingham & Atlantic	640.42	3,051,878	2,454,349	597,529	158,254	439,092
Atlantic Coast Line	4,701.27	34,445,110	22,797,008	11,648,102	1,793,831	9,838,227
Central of Georgia	1,924.09	12,567,618	8,845,067	3,722,551	639,520	3,067,289
Chesapeake & Ohio	2,375.20	48,239,012	31,789,179	16,449,833	1,587,407	14,842,218
Florida East Coast	744.76	7,204,482	3,995,586	3,208,896	326,855	2,881,417
Illinois Central	4,767.12	69,077,343	51,173,728	17,903,615	3,724,021	14,155,087
Louisville & Nashville	5,037.70	60,317,993	39,790,481	20,527,512	2,237,583	18,265,906
Mobile & Ohio	1,122.48	11,868,038	8,533,737	3,334,301	406,384	2,925,200
Nashville, Chattanooga & St. Louis	1,230.76	12,670,688	9,439,033	3,231,655	325,251	2,903,144
Norfolk & Western	2,059.17	57,304,586	32,181,346	25,123,240	2,065,000	23,054,786
Norfolk Southern	907.71	4,591,924	3,068,148	1,523,776	148,391	1,371,975
Seaboard Air Line	3,313.43	24,127,788	16,075,630	8,052,158	1,150,825	6,893,067
Southern	7,022.92	69,997,675	46,041,116	23,956,559	2,916,427	21,004,005
Virginian	504.69	7,390,382	3,844,626	3,545,756	286,100	3,259,486
Yazoo & Mississippi Valley	1,381.87	13,552,431	8,928,039	4,624,392	629,588	3,992,186
WESTERN DISTRICT:						
Atchison, Topeka & Santa Fe	8,623.85	112,625,273	67,553,414	45,071,859	5,327,652	39,711,168
Chicago & Alton	1,052.49	16,325,288	11,601,794	4,723,494	566,839	4,147,140
Chicago & North Western	8,107.82	91,313,866	61,952,329	29,361,537	4,471,527	24,606,707
Chicago, Burlington & Quincy	9,368.16	102,358,892	61,713,161	40,645,731	4,449,290	36,186,893
Chicago Great Western	1,455.35	15,067,345	10,716,498	4,350,847	553,129	3,787,048
Chicago, Milwaukee & St. Paul	10,130.28	105,646,484	69,120,958	36,525,526	5,264,331	31,222,860
Chicago, Rock Island & Gulf	476.75	3,151,053	2,226,249	924,804	116,703	807,294
Chicago, Rock Island & Pacific	7,622.13	72,189,276	52,308,871	19,880,405	3,450,278	16,399,678
Chicago, St. Paul, Minneapolis & Omaha	1,752.81	19,522,563	12,958,838	6,563,725	1,022,053	5,533,335
Colorado & Southern	1,095.43	8,643,377	5,652,448	2,990,929	459,558	2,531,015
Denver & Rio Grande	2,572.29	24,890,084	14,739,411	10,150,673	1,091,461	9,057,705
Duluth, South Shore & Atlantic	628.09	3,506,792	2,482,149	1,024,643	251,683	772,711
El Paso & Southwestern	1,027.08	10,671,627	5,924,268	4,747,359	471,367	4,275,680
Fort Worth & Denver City	454.14	5,822,480	3,581,557	2,240,923	201,636	2,039,287
Galveston, Harrisburg & San Antonio	1,351.21	12,831,389	9,315,071	3,516,318	596,447	2,912,587
Great Northern	8,100.71	81,233,092	43,862,972	37,370,120	5,130,379	32,234,834
Gulf, Colorado & Santa Fe	1,937.71	15,425,934	12,672,696	2,753,238	724,839	2,021,729
Houston & Texas Central	894.63	6,484,167	4,665,365	1,818,802	361,905	1,454,397
International & Great Northern	1,159.50	9,420,291	7,339,224	2,081,067	418,677	1,660,400
Minneapolis, St. Paul & Sault Ste. Marie	4,222.33	35,010,064	19,081,068	15,928,996	1,537,712	14,391,284
Missouri, Kansas & Texas Lines	3,865.06	32,485,508	25,794,345	6,691,163	1,650,167	5,029,973
Missouri Pacific	3,930.76	31,589,056	24,844,131	6,744,925	1,293,988	5,422,237
Northern Pacific	6,501.11	75,939,231	40,366,412	35,572,819	5,073,415	30,493,190
Oregon Short Line	2,257.99	24,982,958	12,810,584	12,172,374	1,615,864	10,551,561
Oregon-Washington R. R. & Navigation Co.	2,039.79	17,447,346	11,846,448	5,600,898	1,192,053	4,406,384
St. Louis & San Francisco	4,750.25	46,358,626	30,811,370	15,547,256	2,093,945	13,434,112
St. Louis, Iron Mountain & Southern	3,410.63	32,783,245	23,439,885	9,343,360	1,558,492	7,754,523
St. Louis Southwestern	943.30	8,040,227	4,624,543	3,415,684	387,775	3,025,405
San Pedro, Los Angeles & Salt Lake	1,144.80	11,244,355	6,678,177	4,566,178	578,886	3,986,282
Southern Pacific	6,942.09	115,942,991	71,678,820	44,264,171	5,068,112	39,176,237
Spokane, Portland & Seattle	554.74	4,973,037	2,522,054	2,450,983	656,980	1,792,766
Texas & Pacific	1,944.07	19,156,856	13,815,976	5,340,880	920,438	4,410,635
Union Pacific	3,619.95	62,286,701	33,925,738	28,360,963	2,502,331	25,846,692
Western Pacific	941.05	7,466,004	4,787,892	2,678,112	349,174	2,327,406

CANADA

AREA, POPULATION AND PROVINCE CAPITALS

Provinces	Area square miles	Population 1911	Per cent. increase in 10 years	Density per sq. mile	Capitals
Alberta.....	255,285	374,663	413.08	1.47	Edmonton
British Columbia.....	355,855	392,480	119.68	1.09	Victoria
Manitoba.....	251,832	455,614	78.52	1.80	Winnipeg
New Brunswick.....	27,985	351,889	6.27	12.61	Fredericton
Nova Scotia.....	21,427	492,338	7.13	22.98	Halifax
Ontario.....	260,862	2,523,274	15.58	9.67	Toronto
Prince Edward Island.....	2,184	93,728	-9.23	42.91	Charlottetown
Quebec.....	351,873	2,003,232	21.46	5.69	Quebec
Saskatchewan.....	251,790	492,432	439.48	1.95	Regina
Yukon Territory.....	207,076	8,512	-68.73	....	Dawson
Northwest Territories.....	1,743,584	18,481	-15.79	....	Ottawa*
Total.....	3,729,663	7,206,643	34.13	1.93	

* The Northwest Territories are governed by a commissioner and council at the National Capital.
NOTE.—For population of cities and towns see index.

THE GOVERNMENT

Executive

The chief executive officer of Canada is the Governor-General, who receives his appointment from the King of England and holds office for five years. His salary of \$50,000 per year is paid by the Dominion of Canada. Victor Christian William Cavendish, ninth Duke of Devonshire was appointed to this position on June 27, 1916.

The Governor-General is assisted by a Council composed of fifteen heads of departments of which the Premier is the President. Rt. Hon. R. L. Borden became the Premier Oct. 11, 1911, following an election in which reciprocity with the United States was the chief issue.

THE CABINET

Premier and President of Privy Council—Sir Robert Laird Borden.....	\$12,000
Secretary of State and Minister of Mines—Hon. Pierre Blondin.....	7,000
Minister of Trade and Commerce—Sir George Eulas Foster.....	7,000
Minister of the Interior—Hon. Wm. J. Roche.....	7,000
Minister of Public Works—Hon. Robert Rogers.....	7,000
Minister of Militia and Defence—Hon. A. E. Kemp.....	7,000
In Great Britain—Sir George Perley.....	
Minister of Railways and Canals—Hon. Francis Cochrane.....	7,000
Minister of Finance—Hon. Sir Wm. Thomas White..	7,000
Postmaster General—Hon. T. Chase Casgrain.....	7,000
Minister of Marine and Fisheries and Minister of the Naval Service—Hon. John D. Hazen.....	7,000
Minister of Agriculture—Hon. Martin Burrell.....	7,000
Minister of Justice—Hon. Charles J. Doherty.....	7,000
Minister of Customs—Hon. John D. Reid.....	7,000
Minister of Inland Revenue—Hon. Esloff L. Patenaude	7,000
Minister of Labor—Hon. T. W. Crothers.....	7,000
Without Portfolio—Hon. James A. Loughheed	
Solicitor General—Hon. Arthur Meighen.....	

Legislative

The Parliament of Canada is composed of a Senate and House of Commons. There are now 96 senators and 221 members of the House distributed as follows:

	Senators	Members of House
Ontario.....	24	86
Quebec.....	24	65
Nova Scotia.....	10	18
New Brunswick.....	10	13
Manitoba.....	6	10
British Columbia.....	6	7
Prince Edward Island.....	6	4
Alberta.....	6	7
Saskatchewan.....	6	10
Yukon Territory.....	..	1

The term of the Senators is for life each receiving his appointment from the crown on the nomination of the Governor-General. The salary is \$2,500, with the exception of the Speaker who receives \$4,000.

The members of the House of Commons are elected by their respective constituencies for a term of five years unless sooner dissolved. Their salaries are the same as those of the Senators, but the Leader of the Opposition receives \$7,000 in addition; \$15 a day is deducted for absences.

Judicial

The highest court in the Dominion is the Supreme Court, composed of a Chief Justice and five judges, each of whom receives a salary of \$9,000 per annum except the Chief Justice, who is paid an additional \$1,000. These judges have civil, criminal and appellate jurisdiction throughout Canada. From the decisions of this court the only tribunal to which appeal can be made is to the Judicial Committee of the Imperial Privy Council of Great Britain. The only other Federal Court is the Exchequer Court, presided over by a single judge for trying cases connected with the revenue. Salary \$8,000.

PROVINCIAL GOVERNMENTS

The Provinces have each a separate administration at whose head is a Lieutenant-Governor appointed by the Governor-General. The provinces have full powers of local government. The organization of the legislative department varies in different provinces.

LITERACY OF TOTAL POPULATION 5 YEARS OF AGE AND OVER

Provinces	Population 5 years and over	Can read and write	Cannot read or write
Alberta.....	328,431	283,513	43,720
British Columbia.....	356,745	314,183	41,549
Manitoba.....	393,360	339,510	52,651
New Brunswick.....	306,981	261,160	43,199
Nova Scotia.....	433,860	384,605	44,897
Ontario.....	2,261,336	2,106,668	147,420
Prince Edward Island.....	83,795	76,259	6,383
Quebec.....	1,712,843	1,482,628	217,316
Saskatchewan.....	421,630	362,768	57,936
Yukon Territory.....	8,006	6,943	1,087
Northwest Territories.....	16,148	4,795	11,182
Total.....	6,323,135	5,622,932	667,340

THE DANISH WEST INDIES

The islands known under the above title comprise three small islands of the Virgin Group of the West Indies—St. Thomas, St. John, and St. Croix or Santa Cruz. These islands, lying directly eastward from Porto Rico and at the entrance to the Caribbean Sea, command the trade route from Europe to the Panama Canal and to Central and South American ports.



They form a crown colony of Denmark and are administered by a governor who is aided by a crown council. The governor resides for half the year in St. Thomas, and in St. Croix for the rest. Danish is the official language and it is taught in the schools for certain hours each week, but English predominates, while French, Spanish, and Dutch are also spoken. The inhabitants

are mainly colored people, who may be divided into the following classes: (1) African Negroes, (2) a mixture of Europeans and Africans, (3) coolies from India, (4) Chinese, and (5) aboriginal Indians. The white population, whether immigrant or West Indian born, includes representatives of Denmark, Great Britain, France, Spain, Germany, and the United States.

INTEREST OF THE UNITED STATES IN THE DANISH WEST INDIES

The Danish islands have had many owners since Columbus first sighted them in 1493. Santa Cruz has been in succession Spanish, English, Dutch, French, Maltese, and Danish. St. Thomas has changed owners as many times, but for over a century Denmark has kept her West Indian colony. It was during the Civil War that the Government of the United States began to feel the need of a naval station for coaling, repairs, and refuge, somewhere on the Caribbean Sea. Negotiations with Denmark were begun by Mr. Seward early in 1865, before the war was ended, but the Danish Government was not favorably inclined. In December of the same year, after a new ministry had taken office at Copenhagen, our Government again made overtures for the islands and the Danish Government, now inclined to consideration, asked how much the United States would pay for the three islands. After an investigation the value of the islands was systematically appraised and the United States offered three million dollars in gold—subject to the Senate's ratification of a treaty to that effect. Denmark hesitated, partly through fear of Prussia, but mainly because of the attitude of France. The latter country revived an old claim to Santa Cruz. That island had been given by Louis XIV to the Knights of Malta, and they had sold it to Denmark in 1713, but stipulated that she should never alienate it without the consent of France. Louis Napoleon

was hostile because the United States had thwarted his plot for the conquest of Mexico. He refused assent to the cession of Santa Cruz to the United States. In 1867, when the islands were governed at a loss to the mother country, a treaty was concluded under which the United States agreed to buy St. Thomas and St. John for 7½ million dollars; but, although the suggestion first emanated from the United States, the Senate refused to ratify the treaty, which finally lapsed on April 14, 1870. In 1892 and again in 1896 Denmark made overtures to the United States, but met with no encouragement. In 1902 another treaty was made ceding all three islands to the United States for 5 million dollars, but the upper house of the Danish Parliament rejected it. There has been dissatisfaction on the part of the mother country because the colony has become a financial burden instead of a source of profit. The people of the islands have grievances, too, and have protested to the king. They have little sentimental attachment to Denmark and many have emigrated to Porto Rico and to the States. Lincoln, Grant, Roosevelt, were foiled in their efforts to get possession of the Danish Islands. They failed, partly because of the short-sightedness and petty political bias of the Senate, and partly because of the secret intrigues of foreign governments.

ST. THOMAS lies 38 m. E. of Porto Rico, in latitude 18° 20' N., and longitude 64° 55' W. It is about 13 m. long, varies in width from 1 to 4½ m. and has an area of 33 sq. m. It consists of a single mountain ridge, the peaks of a submerged range, culminating near its center in West Mountain (about 1600 ft.). The climate is tropical, varying in temperature between 70° and 80° F., but the heat is tempered by sea breezes. The average rainfall is 45 to 50 in.; earthquakes occur at rare intervals and destructive hurricanes occasionally visit the island. The only town, Charlotte Amalie, lies on the south coast, at the head of one of the finest harbors in the West Indies. This is an almost land-locked bay, nearly ¾ m. in width, varying in depth from 26 to 36 ft., entered by a narrow channel only 300 ft. in width. It is provided with a floating dock and a repairing yard. St. Thomas is chiefly important as a coaling and supply station for ships plying to and from the West Indies and South American ports. The soil is sandy but only a small part of the island is under cultivation. The production of cane-sugar, which at one time was the chief industry, declined with the beet sugar competition. Aloes, fibrous plants, and fruit are grown.

ST. JOHN lies 4 m. E. of St. Thomas, is 10 m. long and 2½ wide, and has an area of 21 sq. m. It is a rugged, mountainous mass, which culminates in Camel Mountain (1300 ft.). It is one of the best watered and most fertile islands of the Virgin Group, but it has little commerce. It is a free port, and in Coral Bay possesses the best harbor of refuge in the West Indies. Cruxburg, a village on the northern coast, is the chief place.

SANTA CRUZ or ST. CROIX lies 65 m. E. S. E. of Porto Rico, in latitude 17° 45' N., and longitude 64° 41' W. Area, 84 sq. m. It is generally flat, well watered, and fertile. The climate is hot and at times unhealthy. The greater portion of the island is in sugar cane plantations. Rum and molasses are the leading manufactured products. Christiansted (frequently called Bassin) is the chief town and the residence of the governor of the colony for six months in the year (see St. Thomas). The town is built on the N. E. coast and it has a small but excellent harbor, with forts and garrison.

INTERNATIONAL LAW

A Declaration of the Rights of Nations, applying to the countries of the world the principles of human rights set forth in the American Declaration of Independence, was prepared by the American Institute of International Law, which is composed of 105 members—five from each of the twenty-one American republics. This institute drafted the declaration during the 1916 sessions of the Pan-American Scientific Congress at Washington, D. C.

The declaration set forth the following five international principles:

1. Every nation has the right to exist, to protect and to conserve its existence; but this right neither implies the right nor justifies the act of the State to protect itself or to conserve its existence by the commission of unlawful acts against innocent and unoffending States.

2. Every nation has the right to independence in the sense that it has a right to the pursuit of happiness and is free to de-

velop itself without interference or control from other States provided that in so doing it does not interfere with or violate the just rights of other States.

3. Every nation is in law and before law the equal of every other State composing the society of nations, and all States have the right to claim, according to the Declaration of Independence of the United States, "to assume among the Powers of the earth the separate and equal station to which the laws of nature and of nature's God entitle them."

4. Every nation has the right to territory within defined boundaries and to exercise exclusive jurisdiction over this territory and all persons whether native or foreign found therein.

5. Every nation entitled to a right by the law of nations is entitled to have that right respected and protected by all other nations, for right and duty are correlative and the right of one is the duty of all to observe.

Country	Present Head	Date of Birth	Accession
	Ouizero Zeoditu, Queen		Sept. 30, 1916
	Habibullah Khan, Ameer	July 3, 1872	Oct. 3, 1901
	Hipolito Irigoyen, President		Oct. 12, 1916
	Karl Francis Joseph, Emperor King	Aug. 17, 1887	Nov. 22, 1916
	Albert, King	Apr. 8, 1875	Dec. 17, 1909
	Sir Ugyen Wangchuk, Maharaja		1907
	Señor Dr. Ismael Montes, President		Aug. 15, 1913
	Senhor Wenceslao Braz Pereira Gomes, President		Mar. 1, 1914
	Ferdinand, King	Feb. 26, 1861	Aug. 14, 1887
	Juan Lula San Fuentes, President		Dec. 23, 1915
	Li-Yuan-Hung, President	1864	June 6, 1916
	Don José Vicente Concha, President		Aug. 7, 1914
	Alfredo Gonzalez Flores, President		May 8, 1914
	General Mario G. Menocal, President		May 20, 1913
	Christian X, King	Sept. 26, 1870	May 14, 1912
	Federico H. Carvajal, Provisional President		July 31, 1914
	Alfredo Bazuero Moreno, President		Jan. 11, 1916
	M. Raymond Poincare, President	1858	Jan. 17, 1913
	Wilhelm II, German Emperor and King of Prussia	Jan. 27, 1859	June 15, 1888
	Konstantinos, King	Aug. 2, 1868	Mar. 18, 1913
	Don Manuel Estrada Cabrera, President		Mar. 15, 1911
	General Sudre Dartiguenave, President		Aug. 12, 1915
	Dr. Don Francisco Bertrand, President		Mar. 21, 1912
	Vittorio Emanuele III, King	Nov. 11, 1869	July 29, 1900
	Yoshihito, Emperor (Mikado)	Aug. 31, 1879	July 30, 1912
	Hon. Daniel Howard, President		Jan., 1912
	Marie-Adelaide, Grand Duchess	June 14, 1894	Feb. 26, 1912
	General Venustiano Carranza, Chief of de facto Government		1915
	Albert, Prince	Nov. 13, 1848	Sept. 10, 1889
	Nicholas I, King	Oct. 7, 1841	Aug. 14, 1860
	Mulef Yusef, Sultan		Aug. 18, 1912
	Tribhubana Bir Bikram, King	June 30, 1896	Dec. 11, 1911
	Wilhelmina Helene Pauline Marie, Queen	Aug. 31, 1880	Nov. 23, 1890
	General Emiliano Chamorro, President		Oct. 2, 1916
	Haakon VII, King	Aug. 3, 1872	Nov. 18, 1905
	Seyyid Taimur bin Feysil, Sultan		Oct. 5, 1913
	Ramon Valdez, President		Oct. 1, 1916
	Dr. Emanuel Franco, President		Aug. 15, 1916
	Sultan Ahmad Shah, Shah	Jan. 20, 1898	July 16, 1909
	Dr. José Pardo, President		May 15, 1914
	Senhor Bernardino Machado, President		Oct. 5, 1915
	Ferdinand I, King	Aug. 24, 1865	Oct. 11, 1914
	Nicholas II, Emperor	May 6, 1868	Oct. 20, 1894
	Don Carlos Melendez, President		Mar. 1, 1915
	Peter I, King	June 29, 1844	June 2, 1903
	Chowfa Maha Vajiravudh, King	Jan. 1, 1881	Oct. 23, 1910
	Alphonso XIII, King	May 17, 1886	May 17, 1886
	Gustaf V, King	June 16, 1858	Dec. 8, 1907
	Camille Decoppet, President	1862	Jan. 1, 1916
	Mohammed V, Sultan	Nov. 3, 1844	Apr. 27, 1909
	George V, King and Emperor	June 3, 1865	May 6, 1910
	Dr. Feliciano Viera, President		Mar. 1, 1915
	General Juan Vicente Gómez, President	Apr. 19, 1914	Apr. 19, 1914

†Will probably be succeeded by Vice-President Edmund Schulthess in 1917

ARGENTINA.—96,000 pesos paper and 28,800 pesos paper for official expenses. (Argentine peso paper equal to about 43 cts., U. S. Cur.)

BOLIVIA.—18,000 bolivianos. (Boliviano equals \$0.389 U. S.)

BRAZIL.—120,000 milreis (about \$36,000 gold).

CHILE.—1,384 pounds, with 923 pounds for expenses. (The Chilean pound is of same value as the pound sterling.)

COLOMBIA.—\$18,000 gold.

COSTA RICA.—15,840 colones (about \$7,365).

CUBA.—\$25,000.

DOMINICAN REPUBLIC.—\$9,600.

ECUADOR.—24,000 sucres. (Sucre equals \$0.487.) (About \$12,000.)

GUATEMALA.—60,000 pesos paper (about \$3,600).

HAITI.—4,800 pounds (about \$24,000).

HONDURAS.—42,000 pesos (about \$16,800).

MEXICO.—50,000 pesos (\$25,000).

NICARAGUA.—24,000 pesos (about \$9,600).

PANAMA.—\$18,000.

PARAGUAY.—8,000 pesos paper per month. (Silver peso worth \$0.363. Paper peso fluctuates, exchange rate April 1, 1915, being 1,550%.)

PERU.—48,000 soles (4,800 pounds) per year. An amount for expenses is fixed by Congress each year.

SALVADOR.—\$9,600.

URUGUAY.—\$36,000.

VENEZUELA.—108,000 bolivares (about \$20,844) for salary and expenses.

CHRONOLOGY OF THE MEXICAN REVOLUTIONS

- 1910
- April.—Porfirio Diaz "the Dictator," elected President for eighth consecutive term.
- Oct. 7.—Francisco I. Madero Jr., prosecuted by Diaz for instigating discontent among people, took refuge in Texas, where he perfected plans for a revolutionary movement against the Diaz administration.
- Nov. 19.—Madero crossed the Rio Grande and raised his standard, joining forces with rebel band, organized by Pascual Orozco.
- Nov. 23.—Madero proclaimed himself provisional President.
- 1911
- May 10.—Juarez captured by Madero, who made that city his capital.
- May 25.—President Diaz resigned. Madero gave up the post of provisional President to Francisco Leon de la Barra.
- May 31.—Diaz sailed for Europe.
- Oct. 2.—Madero elected President.
- 1912
- February.—Reactionary movement broke out, led by Orozco with five thousand men at his command. Madero appointed General Huerta commander of Federal forces. Rebels driven back. Huerta arrests "Pancho" Villa, who was sentenced to death for alleged insubordination. Villa removed to Mexico City by order of Madero, and there allowed to go free.
- Oct. 16.—Gen. Felix Diaz, nephew of Porfirio Diaz, seized the port of Vera Cruz. Madero's troops surrounded Vera Cruz. Diaz imprisoned.
- 1913
- Feb. 8.—Diaz escaped from prison, took command of 1,500 soldiers and demanded the resignation of Madero. His plan was to put Gen. Reyes in the presidential chair. On Madero's refusal, a five day combat followed in Mexico City in which Reyes was killed.
- Feb. 18.—Generals Huerta and Blanquet rebelled against Madero's orders and joined hands with his enemies. Huerta elected provisional President.
- Feb. 19.—Madero compelled to resign. Held a virtual prisoner in the National Palace.
- Feb. 23.—Madero and Suarez shot "while trying to escape" in transfer from National Palace to prison.
- March 11.—President Wilson issued mandate refusing to recognize the Mexican Government.
- April 1.—Huerta opened new session of Mexican Congress.
- April-May.—Constitutionalist party organized with General Carranza, governor of Coahuila, as provisional President. "Pancho" Villa an important leader in this party.
- May 9-12.—Battle near Guaymas between Federals and Constitutionals, resulting in defeat of Federal forces.
- Oct. 1.—Villa's forces occupied Torreon, a severe blow to the Federals.
- Oct. 10.—Huerta, who had accused the members of Congress of hostility toward his rule, declared Congress dissolved, seized about 130 members and imprisoned them. He announced that an election would take place Oct. 26.
- Oct. 12.—20,000 U. S. soldiers were encamped on the Rio Grande, as a precautionary measure, because of hostile attitude of both factions in Mexican territory.
- Oct. 26.—Election took place, which Huerta declared null and void, announcing that he would remain in power until a new President should be elected.
- Nov. 1.—Two U. S. battleships were sent to Mexico at the request of the French minister.
- Nov. 14-15.—Federal garrison at Juarez surprised and city captured by Constitutionals.
- Nov. 16.—Sixteen war vessels were stationed off the east coast of Mexico.
- Dec. 10.—New Congress approved annulment of October elections, and set date of new election for July, 1914.
- 1914
- Jan. 10.—Villa defeated Federal troops at Ojinaja.
- Feb. 3.—President Wilson lifted embargo on shipment of arms and ammunition from United States into Mexico.
- April 3.—Battle of Torreon, resulting in defeat of Federal forces, brings about the elevation of Villa as military leader of Constitutionals.
- April 9.—Launch of the U. S. gunboat *Dolphin* sent ashore at Tampico for supplies. The marines were arrested and imprisoned. Admiral Mayo demanded the release of the marines, a formal apology and an official salute to the American flag. The two former were granted but the salute was postponed.
- April 19.—Huerta refused the request of the United States that he salute the flag by 6 P. M., April 19.
- April 21.—Admiral Fletcher seized the custom-house at Vera Cruz.
- April 24.—After three days of fighting, Vera Cruz was entirely occupied by American sailors and marines with a loss of 17 men.
- April 25.—Argentina, Brazil and Chili extend their "good offices" toward mediation.
- April 29.—Huerta accepted provisionally the suggestions for mediation; General Carranza also accepted on behalf of Constitutionals but reserved the right to himself to enter into details.
- April 30.—Naval forces gave over occupation of Vera Cruz to the Army and General Funston took command.
- May 21.—Peace conference began its sessions at Niagara Falls. Carranza withdrew from participation previous to commencement of conference.
- May 31.—General Carranza proclaimed himself provisional President and established his capital at Saltillo.
- June 15.—Constitutionalist forces under Gen. Natera defeated at Zacatecas. Villa immediately assumed control.
- June 23.—Villa captured Zacatecas.
- June 27.—Aguascalientes captured by Villa.
- July 5.—Huerta elected President.
- July 8.—Guadalajara captured by Carranza's forces.
- July 16.—President Huerta resigned, appointing Francisco Carbajal as provisional President.
- July 22.—Armistice between Mexican Government and Constitutionals signed and all hostilities suspended.
- July 29.—Carranza demanded surrender of Carbajal.
- Aug. 7.—Carbajal opposed Carranza's demand.
- Aug. 10.—Carbajal resigned.
- Aug. 13.—Carbajal and his cabinet abandoned Mexico City.
- Aug. 15.—Gen. Obregon led the Constitutionalist army into Mexico City.
- Aug. 20.—Carranza entered Mexico City, appointed his cabinet and repudiated Carbajal's \$10,000,000 bond issue.
- Sept. 21.—Villa declared himself Dictator of the north of Mexico.
- Sept. 23.—Villa declared war on Carranza. Made Torreon his headquarters, while Carranza concentrated his forces at Zacatecas.
- Sept. 25.—Carranza's troops defeated at Santa Barbara.
- Sept. 28.—Villa demanded that Carranza turn Government over to F. I. Calderon as price of peace.
- Oct. 1.—Peace Conference held at Zacatecas between Carranza and Villa. Plan drawn up to ensure peace in Mexico.
- Oct. 5.—Carranza's resignation as First Chief rejected by almost unanimous vote at Mexico City convention. Mexican Constitutionals set up independent government at Hermosillo, Sonora, with General Carranza as President.
- Oct. 10.—Second Peace Conference at Aguascalientes opened.
- Oct. 12.—Villa attacked Carranza garrison at Naco, Sonora.
- Oct. 14.—Resignation of Carranza as First Chief submitted at Aguascalientes convention and accepted. Antonio Villareal elected President of the convention.
- Oct. 15.—Resolution presented and passed declared convention at Aguascalientes to be Supreme Power in Mexico.
- Oct. 21.—Carranza refused to attend the convention.
- Oct. 26.—Zapata's representatives joined the convention.
- Nov. 1.—General Eulalio Gutierrez elected Provisional President for a term of 20 days.
- Nov. 3.—Carranza refused to recognize Gutierrez unless Villa and Zapata leave Mexico. This stipulation ignored, Carranza declared his intention to remain President. Villa's army ordered south. Carranza selects Puebla as temporary capital.
- Nov. 6.—General Gutierrez inaugurated as Provisional President with Villa's approval.
- Nov. 5.—War formally declared between Carranza and "National Congress of Mexico."
- Nov. 16.—Carranza is said to have agreed to resign in favor of Gutierrez, providing Villa retire from his military command.

CHRONOLOGY OF THE MEXICAN REVOLUTIONS (Continued)

1914

- Nov. 17.—Because Villa would not concede Carranza's demand, all negotiations for a peaceful settlement declared off and Provisional President Gutierrez instructed Villa to renew hostilities against Carranza and open the way to Mexico City. In the meantime, Gutierrez remained at Aguascalientes.
- Nov. 18.—Villa forces took Leon. Reported that Villa had arrested Gutierrez and other members of convention because of alleged plot to deliver convention into power of Carranza.
- Nov. 21.—Carranza and his officials left for Vera Cruz.
- Nov. 23.—American troops evacuated Vera Cruz.
- Nov. 24.—General Lucio Blanco, who had remained to guard the city against Zapata, departed with his forces. Zapata's troops took possession, and maintained order.
- Nov. 26.—Villa's men defeated near Tampico. Generals Villareal, Obregon and Hay in the field for Carranza.
- Nov. 27.—Carranza set up his government at Vera Cruz.
- Nov. 28.—Villa's army defeated at Guadalajara, his cavalry in Mexico City. Heavy losses of Maytorena forces at the border.
- Nov. 30.—Gonzales set up government in Mexico City.
- Dec. 4.—Villa entered Mexico City with Zapata. Gutierrez put in office as provisional president, supported by Villa, Zapata and Angeles.
- Dec. 6.—Carranza took over railroads, telegraph and telephone offices.
- Dec. 8.—Battle in streets of city between forces of Villa and Zapata.
- Dec. 13.—Carranza assumed all military, judicial and legislative powers.
- Dec. 14.—Gutierrez promised to protect border towns.
- Dec. 17.—Gutierrez prohibited summary punishment, and provided for trial by court-martial.

1915

- Jan. 16.—Gutierrez named for provisional president to serve until April, 1916.
- Jan. 18.—Martial law established in Mexico City.
- Jan. 27.—Secretary Bryan warned Americans not to re-enter Mexico; said State Department had refused aid to those who were warned and would not leave.
- Mar. 28.—Garza succeeded Gutierrez as provisional president.
- Apr. 1.—Service suspended on Interoceanic Railways because of stations being burned and trains shot at. Similar trouble on Mexican Railway.
- Apr. 10.—Carranza notified the United States that he would not agree to neutralization of transportation between Mexico City and Vera Cruz.

1915

- May 14.—Yaqui Indians attacked American colony in Sonora; killed several and wounded many; General Maytorena sent troops for protection. Two United States cruisers went to Guaymas to protect Americans, who sought refuge on the ships.
- May 28.—President Wilson aroused by Carranza seizure of corn; sent word that food must be allowed to pass, or United States would act.
- June 2.—President Wilson promised support of United States to worthy man who could rally the inhabitants in an effort to bring about peace. In case Mexicans failed to reach agreement, United States would decide means to save Mexico and serve the people.
- June 17.—Admiral Howard ordered to land on the west coast unless uprisings cease.
- June 30.—Disorder continued. Secretary Lansing invited representatives of six leading South and Central American countries to confer on Mexico, and plan a movement toward peace.
- Aug. 5.—Argentina, Brazil, Chili, Bolivia, Uruguay and Guatemala invited by Secretary Lansing to solve Mexican problem.
- Aug. 10.—Villa made concession to United States in regard to northern part of Mexico.
- Aug. 13.—Pan American Conference sent note to all Mexican leaders, offering to arrange for their meeting on neutral territory in Mexico to decide on a provisional president, and set up a government which United States could recognize. Replies requested in ten days.
- Aug. 15.—Carranza protested to Argentina against that country's participation in Pan American Conference, called by Secretary Lansing, as a crime to Mexican people.

- Aug. 31.—American ranchers killed General Orozco and four Mexican bandits.
- Sept. 15.—Carranza refused to join general conference with Pan American powers.
- Oct. 19.—The Pan-American Conference, at its final meeting decided to recognize General Carranza as provisional President of Mexico. The conference was composed of representatives of the United States, Argentina, Brazil, Chili, Bolivia, Uruguay, and Guatemala.
- Oct. 31.—Five thousand Carranza soldiers with mounts and artillery received permission to travel through American territory from Eagle Pass to Douglas, Arizona on representations that the Carranza forces at Agua Prieta, opposite Douglas, were threatened with siege by the insurgent army of Gen. Villa.
- Nov. 2.—Villa defeated at the town of Agua Prieta by Carranza forces under Gen. Calles. American soldiers and others on American territory were wounded.
- Nov. 10.—Cuba recognized Carranza.
- Nov. 16.—Great Britain recognized Carranza.
- Nov. 22.—Carranza forces captured Cananea and inflicted a loss of 2000 men on Villa at Hermosillo.
- Nov. 24.—Following repeated Indian outrages in Mexico the American armored cruiser "San Diego" was ordered to the west coast of Mexico.
- Nov. 25.—Spain recognized Carranza.
- Dec. 17.—Henry Prather Fletcher was appointed American Ambassador to Mexico.

1916

- Jan. 10.—C. R. Watson and fifteen other Americans taken from train forty miles west of City of Chihuahua by bands commanded by Gen. Lopez and Gen. Reyna, operating under direction of Villa, stripped naked and shot. This act occurred in territory announced to be in control of the Carranza forces.
- Jan. 12.—Secretary Lansing telegraphed a demand on Gen. Carranza for the immediate pursuit, capture and punishment of the bandits.
- Jan. 13.—Eliseo Arredondo, Ambassador designate of the de facto government of Mexico, assured Secretary Lansing that Carranza troops had been despatched to western Chihuahua with orders to kill or capture all the bandits concerned in the slaying of American citizens.
- Jan. 14.—Carranza published a decree empowering any citizen of Mexico to kill on sight Villa, Rafael Castro and Pablo Lopez, murderers of Americans.
- Mar. 9.—A band of 1500 Mexicans under Villa crossed the border and at 4:30 o'clock in the morning attacked the town of Columbus, New Mexico and the camp where the Thirtieth U. S. Cavalry was stationed. The Mexican raiders crept past the camp without being discovered, looted the post office and several stores, set fire to several houses and shot a number of civilians before our troops got into action. After two hours looting, the raiders withdrew across the Mexican border leaving 11 civilians and 8 U. S. soldiers dead as well as 27 of their own men. The U. S. troops pursued Villa across the border where more fighting took place, in which some forty Villistas were killed.
- Mar. 10.—President Wilson and his cabinet decided to send a punitive expedition into Mexico.
- Mar. 12.—Carranza issued a manifesto to the effect that he would forbid the pursuit of Villa on Mexican soil unless the reciprocal right would be granted to Mexico to cross into American territory. President Wilson agreed to Carranza's terms.
- Mar. 15.—The punitive expedition reported to number about 6000, entered Mexico in two columns. Brig. Gen. John J. Pershing with about 4,000 men crossed the border south of Columbus, while Col. George A. Dodd, heading a smaller column crossed some distance west of Columbus, near Hachita.
- Mar. 21.—Gen. Funston, at Gen. Pershing's suggestion appealed to the War Department for more troops and the Fifth Cavalry was ordered to Mexico to protect the line of communications.
- Mar. 24.—Two columns of Gen. Pershing's force reported 120 miles southeast of Casas Grandes.
- Mar. 26.—Villa reported checked near Namiquipa by Mexican troops, but escaped. The bandit and his men headed into the Madera Valley, which runs south from the Namiquipa country. The American troops were over 200 miles below the border.

CHRONOLOGY OF THE MEXICAN REVOLUTIONS (Continued)

1916

- Mar. 27.—Villa attacked the town of Guerrero, put to death 172 men in the garrison and held others prisoners intending to kill them. During the engagement Villa was shot through the leg but escaped.
- Mar. 28.—Col. Dodd's column was shifted from the eastern slope of the Sierra Madre to the Pacific Slope and began to operate out of Madera as a base.
- Mar. 28.—Urgency deficiency bill, appropriating \$8,611,502, for expenses in connection with the army's punitive expedition into Mexico and the recruiting of the additional 20,000 men to bring the regulars up to maximum strength, passed the House and Senate, and was sent to the White House for the President's signature.
- Mar. 29.—Villa surprised near Guerrero by a flying detachment of American cavalry under Col. Dodd, was badly defeated, and seriously wounded. Villa's Chief Military Commander Eliseo Hernandez was killed. In a ten-mile running fight Villa's troops were driven into the mountains where they separated into small bands.
- Mar. 30.—One of the smaller bands into which the Villa force scattered was struck by Col. Cano and their leader, Manuel Boco was killed.
- April 12.—A band of 100 American troopers under Major Tompkins who entered Parral in alleged violations of "instructions" not to occupy towns, were attacked by a force of Carranza soldiers and obliged to withdraw. Forty Mexican soldiers were killed by the retreating Americans. The American casualties were two killed and six wounded.
- April 13.—The Carranza government requested the immediate withdrawal of the American punitive expedition from Mexico, giving these reasons: (1) The American expedition was sent against Villa without warrant, because there was no previous formal or definite understanding; (2) Because the expedition was not fulfilling its object and could not do so, as "the band headed by Villa has already been dispersed." (3) Because there were "sufficient Mexican troops to pursue Villa."
- April 19.—Secretary of War Baker dispatched Major Gen. Hugh L. Scott, Chief of Staff, to the border as his personal representative to make complete report on the military problems confronting Gen. Funston.
- April 24.—The Carranza Government accepted a proposal from the United States for a conference on the international border between Gen. Alvarado Obregon, Minister of War and Major Gen. Hugh L. Scott, to discuss the military aspects of the American punitive expedition into Mexico and the de facto Government's attitude toward the project for the capture of Villa.
- April 29.—The first conference between the representatives of the United States and Mexico began at Juarez.
- May 4.—The Eleventh Cavalry surprised and routed a large force of Villa bandits at Ojo-Azuless. There were no American casualties but 42 Mexicans were killed and a number of fugitives rounded up.
- May 5.—The Big Bend district in Brewster County, Texas, was raided by Mexicans, the foray taking in three small settlements near the border—Glen Springs, Boquillas and Deemer. Three American soldiers and a ten-year-old American boy were killed and two American citizens, John Deemer and C. G. Compton, were kidnapped and carried south of the international border.
- May 9.—President Wilson ordered our the State militia of Texas, Arizona and New Mexico to patrol the Mexican border and the War Department directed that three more regiments of the regular infantry be despatched to the border and placed under Gen. Funston's command.
- May 10.—American consuls throughout Mexico were instructed again to call attention of Americans to the State Department's repeated warnings that this government regarded their presence there as undesirable.
- May 11.—The conference between the representatives of the United States and Mexico, begun on April 29, came to an abrupt ending. No agreement was signed but it was believed that the net results of the conference were as follows:

First—General Scott was convinced that the Carranza de facto Governments understood that the purpose of the United States in sending troops into Mexico was not aggression or armed intervention

Second—General Obregon had agreed to send 10,000 picked troops into the Big Bend and Parral regions of Mexico to stamp out bandits.

Third—General Obregon had given orders to General Trevino to endeavor to head off the bandits who raided Glenn Springs and Boquillas.

Fourth—The United States troops were to remain in Mexico until the Carranza Government demonstrated that it had power to control the situation in Northern Mexico and where the United States Government had no troops.

Fifth—General Obregon also gave assurances that the Carranza forces would not move from Sonora through Pulpito Pass to operate in the rear of General Pershing's column and would not attack American troops.

Sixth—Every effort should be made by Carranzistas to free the Americans whom the Big Bend bandits kidnapped.

May 26.—Candelario Cervantes and Jose Bencomo, Villista Chiefs were shot and killed near Cruces by United States troops.

May 31.—The Carranza de facto Government delivered to the United States Government a new and sharp note, bristling with what amounted to charges of bad faith against President Wilson and insisting upon the immediate withdrawal from Mexico of the American military forces or a frank declaration of the American Government in explanation of its purpose in retaining them there. The note did not fix any time limit within which the American forces should be withdrawn but asserted that should the American Government refuse to comply with these requirements the de facto government might conclude that the expedition was being maintained on Mexican soil for occult reasons and as a precautionary measure in anticipation of a clash with Mexico.

June 1.—President Wilson let it be known that although he had no intention of keeping the troops across the border longer than necessary to enable the Carranza authorities to end the operations of bandits, the United States would not yield to the demand of Carranza.

June 9.—American consulate in Chihuahua was stoned.

June 10.—It was reported from San Antonio that a Mexican band had raided a Texas ranch and that Capt. Bell with one troop of the Fourteenth Cavalry had crossed the line in pursuit. On the same day Gen. Trevino, acting governor of Chihuahua, was represented as urging all Americans to leave, as he could not guarantee them protection against the rising resentment of the Mexicans.

June 11.—Secretary of War Baker ordered 1,500 additional regulars to go to San Antonio for border patrol service. This action was induced by a report from Gen. Funston telling of Mexicans firing on an American patrol near New Hatchet, N. M., and wounding Private Lee W. Saunders of the Twelfth Cavalry. Gen. Funston asked for more men to strengthen the border patrol so that reinforcements could be sent to Gen. Pershing if needed.

June 13.—Secretary Lansing sent a preliminary representation to Carranza calling his attention to the fact that a Mexican raider killed by American soldiers following a raid on Coleman's ranch near Laredo, Tex., was positively identified as Lieut.-Col. Villareal, an officer in Carranza's army.

June 15.—Following conferences in Washington between Secretary Lansing and certain members of the Diplomatic Corps, it was reported that some of the other Powers had offered their friendly assistance in solving the Mexican problem without war. On the same day, according to despatches from Mexico city, Gen. Gaviira was reported put to death for having held unauthorized conferences with Gen. Pershing.

June 16.—Washington heard unofficially that Gen. Jacinto Trevino, acting under instructions from Gen. Carranza, had informed Gen. Pershing that any further movement to the east, south or west would be regarded as a hostile act and a signal for warfare. Following the entry into Mexico of American troops near Laredo, notices were posted in Juarez inviting all Mexican citizens to meet every day to receive military instruction. Gen. Pershing's reply to Gen. Trevino's threat was:

I have not received orders to remain stationary or to withdraw. If I see fit to send troops in pursuit of the bandits to the south, east or west, in keeping with the object of this expedition, I will do so.

CHRONOLOGY OF THE MEXICAN REVOLUTIONS (Continued)

- If any attack is made on any part of my forces while performing such duties the entire military strength of the expedition will be used against the attacking force. Gen. Trevino, as commander in chief of the de facto troops in the north, will be held responsible for the Mexican forces within striking distance of American forces.
- June 17.—While Secretary of War Baker was in conference with President Wilson word was received of serious fighting on the Mexican side of the border near Brownsville, Tex. Gen. Ricaut announced that the American soldiers in Mexico would be attacked unless a punitive expedition that chased marauders across the line on June 16 was withdrawn at once. Gen. Parker's answer was to rush the Twenty-eighth Infantry and seven troops of the Third Cavalry below Matamoras.
- June 18.—A detachment of bluejackets on motor launch from the U. S. gunboat "Annapolis" sent to landing at Mazatlan was fired on by customs officials and others on shore.
- June 19.—President Wilson called out the militia of every State for border duty. On the same day the American punitive expedition that had crossed near Brownsville was withdrawn, after being fired upon, with the result that one Mexican was killed and three wounded. Gen. Obregon, Carranza's Minister of War, replied to President Wilson's summons to the militia by calling upon all Mexicans to be prepared to defend the country in case of a rupture of relations with the United States.
- June 19.—Carranza, addressing a crowd in Mexico city, said conditions were not so serious and that the outcome depended upon the United States. He also instructed his leaders at the border not to permit the further passage of American forces. Gen. Obregon, also speaking in Mexico city said: "The United States designs to crush us with brute force and defile our soil with the feet of the invader. Before this prospect we are determined to shed the last drop of our blood to avoid it."
- June 20.—Secretary Lansing sent the long delayed note to Carranza. It summed up at great length Mexican outrages upon American life and property and warned Carranza that the United States would not recede from its determination to remove the border peril and that the execution of Carranza's threat to attack American troops if they did not retire "will lead to the gravest consequences."
- June 22.—Troops C and K of the U. S. Tenth Cavalry commanded by Captains Boyd and Morey, while in pursuit of bandits at Carrizal, were fired upon by Carranza soldiers under command of General Gomez. Captain Boyd and twelve American soldiers were slain and eighteen were taken prisoners. Captain Morey though wounded, escaped. The Mexicans lost forty-two soldiers including General Gomez.
- June 23.—500 U. S. Cavalry troopers sent to rescue Carrizal squad.
- June 25.—President Wilson sent ultimatum to Carranza demanding "immediate release of the prisoners taken in the encounter at Carrizal with any property of the U. S. taken with them," also that "the Government of the U. S. expects an early statement as the course of action the Mexican Government wishes the U. S. to understand it has determined upon."
- June 27.—The first contingents of the National Guard entrained for Mexico.
- June 28.—Carranza freed 23 American troopers held prisoners, eighteen captured at Carrizal and five others picked up after the battle. He thus avoided immediate break with the United States.
- July 5.—Carranza, in note United States, suggested that the United States and Mexico submit their differences to arbitration or direct negotiation.
- July 7.—Congress asked for special appropriation of \$1,643,500 to complete equipment of the National Guard and \$300,000 for getting Americans out of Mexico. Bandits defeated Carranza troops near Corralitos and crossed desert toward the border.
- July 12.—Note received in Washington proposing the appointment of three commissioners by each government, to settle difficulties between the two countries.
- July 28.—President Willson accepted the plan.
- Aug. 3.—Luis Cabrera, Minister of Finance, Ignacio Bonillas, Under Secretary of communications, and Auberto J. Pani, President of the National Railways of Mexico, were selected as the Mexican commissioners.
- Aug. 22.—President Wilson selected Franklin K. Lane, Secretary of the Interior, George Gray of Wilmington, Del., and Dr. John R. Mott of New York as American members of the commission.
- Sept. 1.—Villa attacked Carranza leader in Santa Ysabel and forced him to retire.
- Sept. 2.—Hipolito Villa arrested at Fort Bliss, Texas.
- Sept. 3.—First municipal elections were held in Mexico.
- Sept. 6.—American and Mexican joint commission met at New London.
- Sept. 12.—President Wilson received commissioners on board the *Mayflower*.
- Sept. 16.—Villa attacked Chihuahua City, but was driven off.
- Sept. 26.—Villa bandits wiped out two Carranza garrisons.
- Sept. 30.—Carranza abolished Vice-Presidential post and reformed constitution.
- Oct. 15.—10,000 Carranza troops reported to have joined Felix Diaz in a movement against Carranza.
- Nov. 3.—Villa was reported to have captured Parral and Ynez Salazar.
- Nov. 12.—Carranza threatened to recall Mexican commissioners unless the U. S. Army is withdrawn.



CHRONOLOGY OF THE GREAT WAR

FIRST YEAR

1914

- June 28.—Archduke Francis Ferdinand assassinated.
 July 23.—Presentation of Austro-Hungarian note to Serbia.
 July 28.—War declared on Serbia by Austria-Hungary.
 July 30.—Partial mobilization of Russian Army. Belgrade bombarded by Austria-Hungary.
 July 31.—General mobilization of Russian Army ordered. State of war declared in Germany.
 Aug. 1.—War declared on Russia by Germany. Luxemburg invaded by Germany. French cabinet orders general mobilization.
 Aug. 2.—German troops enter France. German ultimatum to Belgium demanding free passage for her troops. Russian troops enter Germany.
 Aug. 4.—Ultimatum sent by Great Britain to Germany demanding an assurance that the neutrality of Belgium shall be respected. Germans attack Liege. Mobilization of the British Army. Germany declared war on both Belgium and France. Great Britain declared war on Germany. Mobilization of Turkish Army. President Wilson issues proclamation of neutrality.
 Aug. 5.—Lord Kitchener appointed British minister of War. German mine-layer *Koonigen Luise* destroyed. First installment of British expeditionary force landed on French coast. President Wilson tenders his good offices to the warring nations.
 Aug. 6.—Austria-Hungary declared war on Russia.
 Aug. 7.—Mobile Belgian military force withdrew from Liege, leaving forts occupied by their permanent garrisons.
 Aug. 8.—French advance into Alsace, occupying Altkirch. Italy reaffirms neutrality.
 Aug. 9.—German warships *Goben* and *Breslau* took refuge in the Bosphorus. French occupy Muehlhausen.
 Aug. 10.—France declares war on Austria-Hungary.
 Aug. 12.—England declares war on Austria-Hungary. Sale of German warships *Goben* and *Breslau* to Turkey announced.
 Aug. 14.—Mobilization of French Army completed and announced as being in touch with the Belgians. Allies protested to Turkey against purchasing and taking over the German warships *Goben* and *Breslau*.
 Aug. 15.—Japanese issue ultimatum to Germany demanding evacuation of Kiauchau. Russia issues proclamation promising reconstitution and autonomy of the Kingdom of Poland.
 Aug. 16.—Landing of British expeditionary force on coast of France completed. Russian advance on Germany begun.
 Aug. 17.—Belgian Government removed from Brussels to Antwerp. Beginning of a five days' battle in Lorraine, ending in repulse of French across frontier with heavy loss. Beginning of five days' battle between Servians and Austrians on the Jadar, ending in Austrian rout.
 Aug. 20.—Brussels occupied by Germans. Belgian Army retreats to Antwerp. French reverses in Alsace.
 Aug. 23.—Germans enter Namur and begin attack on Mons. Japan declares war on Germany, blockades and commences bombardment of Tsingtau. Germans destroy three of Namur forts.
 Aug. 24.—Fall of Namur announced.
 Aug. 25.—Louvain destroyed by Germans. German *Zepplin* drops bombs on Antwerp. Muehlhausen evacuated by French.
 Aug. 26.—Non-partisan French cabinet organized. Germans take Longwy.
 Aug. 28.—British fleet sinks five German warships off Helgoland.
 Sept. 2.—Russians defeat Austrians at Lemberg after seven days continuous fighting.
 Sept. 3.—French Government removed from Paris to Bordeaux.
 Sept. 5.—Great Britain, France and Russia agree not to treat for peace separately. Rheims taken by Germans.
 Sept. 7.—Germans reach extreme point of their advance in first invasion of France, and begin retreat.
 Sept. 12.—German retreat halts on Aisne.
 Sept. 14.—British auxiliary cruiser *Germania* sinks German armed cruiser *Cop Takahagi* off east coast of South America.
 Sept. 16.—Russians retire from East Prussia.
 Sept. 20.—Bombardment of Rheims Cathedral by Germans. British cruiser *Pegasus* completely disabled while at anchor in Zansibar Harbor by German cruiser *Koenigsberg*.

1914

- Sept. 22.—British cruisers *Aboukir*, *Hogue* and *Cressy* sunk by German submarine in North Sea.
 Sept. 28.—Germans bombard Antwerp's first line of defence.
 Oct. 5.—Belgian Government removed from Antwerp to Ostend.
 Oct. 7.—Japanese seize Caroline Islands.
 Oct. 9.—Germans occupy Antwerp.
 Oct. 11.—German advance in Poland threatens Warsaw.
 Oct. 12.—Martial law declared throughout Union of South Africa on account of mutinies by Boer leaders.
 Oct. 13.—Belgian Government removed from Ostend to Havre.
 Oct. 15.—Ostend occupied by Germans.
 Oct. 16.—British cruiser *Hawke* sunk by German submarine.
 Oct. 17.—Japanese cruiser *Takahiko* sunk by torpedo in Kiauchau Bay.
 Oct. 18.—Belgian Army effects junction with allied left. Beginning of battle from Channel coast to Lisle.
 Oct. 24.—Ten days battle before Warsaw ends in German defeat.
 Oct. 27.—The "*Audacious*" one of the new British dreadnoughts, sunk by a mine off the Irish Coast.
 Oct. 29.—Turkey begins war on Russia by naval attacks on Black Sea ports.
 Nov. 1.—German squadron defeated British squadron off Coronel, Chile.
 Nov. 5.—England and France declare war on Turkey. Dardanelles forts bombarded.
 Nov. 6.—Kiauchau surrenders to Japanese.
 Nov. 11.—Germans cross Yser Canal and capture Dixmude.
 Nov. 13.—Russians seize Tarnow, Krasno, and Jaslo.
 Nov. 18.—Officially reported that a launch of U. S. S. *Tennessee* was fired on in harbor of Smyrna, Turkey.
 Nov. 21.—Russians capture Gumbinnen.
 Nov. 22.—Turks gain victory over British near Port Said, east of the Suez Canal.
 Nov. 23.—Beginning of second Battle of Ypres in the Argonne.
 Nov. 24.—Russian victory concludes ten-day battle in Poland.
 Nov. 25.—British steamer *Malachite* sunk near Havre by German submarine.
 Nov. 26.—British predreadnought *Bulwark* blown up in the Thames.
 Nov. 27.—French gain strongholds along line from the Channel to Muehlhausen. Bombardment of Rheims effected.
 Nov. 29.—Important positions captured by Allies near Ypres. Russians seize Czernowitz.
 Nov. 30.—Capture of Belgrade by Austrians ends 126-day siege.
 Dec. 3.—Germans take offensive position between Ypres and Dinmude.
 Dec. 5.—Allies successfully resist the German attack at Ypres.
 Dec. 6.—Germans capture Lodz and threaten Warsaw.
 Dec. 8.—British battleship squadron meets and destroys four German cruisers off Falkland Islands. Only one German cruiser escapes and this is pursued by the British fleet. British force captures Kurna in Turkey.
 Dec. 10.—Von Moltke is succeeded by von Falkenbayn as head of the German General Staff.
 Dec. 12.—Austrians repulsed by Servians at Kosmai.
 Dec. 13.—British submarine sinks Turkish battleship *Masudieh* in the Dardanelles.
 Dec. 14.—Servians recapture Belgrade. Austrians capture 9,000 Russians at Dukla in the Carpathians.
 Dec. 16.—The English coast towns Scarborough, Hartlepool, and Whitby are bombarded by a German squadron.
 Dec. 17.—England declares protectorate over Egypt; end of Turkish suzerainty.
 Dec. 18.—Germans seize Lowicz.
 Dec. 19.—Battle on the Bzura halts Germans thirty miles from Warsaw.
 Dec. 20.—Interior forts of the Dardanelles are bombarded by allied fleets. Germans advance farther toward Warsaw.
 Dec. 21.—Russians win in Armenia.
 Dec. 22.—German strongholds along Belgian coast shelled by allied fleets.
 Dec. 23.—Austrians defeated in Carpathians.
 Dec. 25.—British cruisers, accompanied by hydroaeroplanes, attack German naval base at Cuxhaven.
 Dec. 30.—Germans withdraw over the Bzura.

FIRST YEAR (Con't.)

1915

- Jan. 1.—British battleship *Formidable* is torpedoed and sunk in the English Channel with severe loss.
- Jan. 4.—French troops capture Steinbach in Alsace. Russians are victorious at Ardahan and Sarikamys.
- Jan. 7.—President of France issues decree prohibiting the sale and transportation of intoxicating liquors.
- Jan. 9.—Germans recapture Steinbach and Burnhaupt.
- Jan. 10.—Thirty bombs thrown by German aeroplanes on Dunkirk.
- Jan. 13.—Baron Burian, a Hungarian, succeeds Count Berchtold as Premier of Austria-Hungary.
- Jan. 14.—Germans win victory north of Soissons, forcing the French retreat across the Aisne.
- Jan. 15.—Kirlibaba Pass taken by the Russians.
- Jan. 16.—Turkish mine sinks French submarine *Saphir* in the Dardanelles.
- Jan. 18.—La Bassee, centre of fierce fighting, victories alternating. The French advance within ten miles of Metz.
- Jan. 19.—German airships raid English towns on Norfolk coast.
- Jan. 24.—German squadron is defeated by British coast patrol in second attempt to raid the English coast. German cruiser *Bluecher* sunk.
- Jan. 27.—Austrians recapture Ussok Pass.
- Jan. 28.—French defeated at Craonne.
- Jan. 30.—Russians win Tabriz in victory over Turks.
- Feb. 1.—Germans recapture Borjilmow, driving the Russians back upon Warsaw.
- Feb. 2.—The four outer forts of the Dardanelles are shelled by British and French fleets.
- Feb. 4.—Germany declares waters surrounding the British Isles, except a passage north of Scotland, to be a war zone after Feb. 18.
- Feb. 6.—The *Lusitania* flies American flag in the "danger zone" under British protection.
- Feb. 9.—Russians repel heavy attack of the Germans in the Carpathians.
- Feb. 10.—U. S. Government protests against Germany's "war zone" decree.
- Feb. 12.—Belgian coast seaports raided by thirty-four British aircraft.
- Feb. 14.—German troops occupy Plock.
- Feb. 16.—Forty British aviators again attack Belgium. Italy and Holland protest against "war zone" decree.
- Feb. 18.—Germany declares "war zone" decree to be in effect.
- Feb. 19.—Great Britain suspends passenger travel between England and the Continent.
- Feb. 20.—American cotton-ship *Evelyn* is sunk by mine off coast of Holland.
- Feb. 23.—American steamer *Carib* is sunk off the German coast.
- Feb. 24.—Germans capture Przasnysz north by west of Warsaw.
- Feb. 25.—Allied fleet silences all forts at entrance to the Dardanelles.
- Feb. 27.—Russians recapture Przasnysz.
- Mar. 2.—Russians occupy Dukla Pass.
- Mar. 5.—Continued bombardment of the Dardanelles silences three more forts on the Asiatic side.
- Mar. 9.—Three British merchantmen sunk by German submarines.
- Mar. 11.—British take Neuve Chapelle and advance toward Lisle.
- Mar. 14.—Three British warships sink the German cruiser *Dresden* near Juan Fernandez Island.
- Mar. 15.—French capture trenches in vicinity of Arras.
- Mar. 18.—British battleships *Irresistible* and *Ocean* and the French battleship *Bouvet* are sunk in the Dardanelles. The British *Inflexible* and French *Gaulois* are damaged.
- Mar. 22.—Przemysl is surrendered to the Russians.
- Mar. 23.—Lupkow Pass is won by the Russians.
- Mar. 28.—British-African passenger-ship *Falaba* is sunk by a German submarine in St. George's Channel.
- Apr. 1.—Germans begin attacks on English fishing fleets.
- Apr. 2.—British battleship *Lord Nelson* is destroyed in the Dardanelles.

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- Apr. 3.—Allied fleet withdraws from the Dardanelles.
- Apr. 4.—Russian army wins Smolnik near Lupkow Pass.
- Apr. 5.—Russians capture Varcze Pass in the Carpathians.
- Apr. 7.—Germans surrender Les Eparges to the French.
- Apr. 11.—Russian army camps within eighteen miles of the Hungarian border.
- Apr. 14.—Fierce fighting rages at "Hill 60" in the vicinity of Ypres.
- Apr. 17.—Russians withdraw from Tarnow in Galicia.
- Apr. 19.—Germans gain in the struggle near Ypres.
- Apr. 20.—British defeat the Turks in Mesopotamia. Relations between Austria and Italy become strained. Germans begin to evacuate Italy.
- Apr. 23.—Attack by the Allies is resumed in the Dardanelles.
- Apr. 26.—Russians suffer losses at Ussok Pass.
- Apr. 26.—Germans, reinforced, repulse French north of Ypres offsetting loss at Neuve Chapelle.
- Apr. 28.—English and French ships suffer severe loss in the Dardanelles. The Allies establish armies on the peninsula of Gallipoli.
- Apr. 29.—Germans cut the Libau-Kovno railroad in Russia.
- Apr. 30.—Germans shell Dunkirk from distance of 20 miles.
- May 1.—American oil-steamer *Cushing* wrecked by German aeroplane in the North Sea. American steamer *Gulflight* sunk by German submarine.
- May 2.—Austrians gain heavy victory over the Russians in Tarnow.
- May 5.—British lose "Hill 60" near Ypres.
- May 7.—The *Lusitania* is sunk by German submarine off Kin-sale, Ireland, with a loss of 1198 lives of which 120 were Americans.
- May 13.—President Wilson sends *Lusitania* protest to Germany.
- May 16.—British battleship *Goliath* sunk in the Dardanelles.
- May 18.—German trenches captured south of Richebourg.
- May 19.—Reorganization of English cabinet.
- May 22.—Italy declares a 'State of War.' Troops clash on the frontier.
- May 23.—French gain north of Arras.
- May 24.—Italy declares war on Austria.
- May 26.—Ex-Premier Balfour succeeds Winston Churchill as First Lord of the Admiralty.
- May 27.—British battleship *Triumph* is torpedoed in the Dardanelles.
- May 28.—British auxiliary vessel *Princess Irene* is blown up at the mouth of the Thames, loss of 424 lives.
- May 29.—Germany's reply to U. S. note suggests arbitration. British shells sink Zeppelin in North Sea.
- May 30.—Italians force way to Trieste, and capture town of Ala.
- June 1.—Zeppelin airships drop ninety bombs at the mouth of the Thames.
- June 3.—Italians reduce fort near Trent. San Marino Republic (smallest independent government in the world) declares war. Przemysl retaken by Austro-German troops.
- June 7.—Secretary of State Bryan resigns.
- June 8.—Italians occupy Monfalcone.
- June 11.—President Wilson's second *Lusitania* note to Germany made public.
- June 13.—Gen. Mackensen breaks Russian line east of Przemysl. Venizelos wins in Greek elections.
- June 22.—Austro-Germans recapture Lemberg.
- July 7.—Italian armored cruiser *Amalfi* sunk by Austrian submarines.
- July 8.—Germany's reply to second United States note regarding *Lusitania* handed to American Ambassador at Berlin. Last German forces in South Africa surrender to Gen. Botha. Russians surprise Austrians under Archduke Joseph Ferdinand and capture 15,000.
- July 22.—President Wilson sends third *Lusitania* note to Germany.
- July 31.—Austrians occupy Lublin.
- Aug. 4.—British notes on blockade made public.
- Aug. 5.—Germans occupy Warsaw and Ivangorod.

CHRONOLOGY—SECOND YEAR OF GREAT WAR

- Aug. 1.—Teutonic forces advancing steadily on Warsaw.
 Aug. 5.—Teutons occupy Warsaw and Ivangorod.
 Aug. 7.—The Allies land a new army on Gallipoli peninsula.
 Aug. 9.—British forces gain slight success in vicinity of Ypres.
 Aug. 12.—The Germans take Siedlce, east of Warsaw.
 Aug. 14.—The British transport *Royal Edward* is sunk by a submarine in the Aegean Sea with a loss of over a thousand lives.
 Aug. 17.—The Germans occupy the city of Kovno. Zeppelins again raid the suburbs of London.
 Aug. 19.—The trans-atlantic liner *Arabic* is torpedoed and sunk off Fastnet; several American lives lost. The Germans occupy Novo Georgievsk.
 Aug. 21.—German naval forces suffer defeat by Russian ships in an attack on Gulf of Riga.
 Aug. 26.—German offensive movement continues successful with the occupation of Brest-Litovsk.
 Aug. 28.—The German ambassador to the United States, Count Von Bernstorff, requests delay of action on part of this government in the *Arabic* case and promises full satisfaction.
 Sept. 1.—Germany gives virtual acceptance of the American contentions on submarine warfare.
 Sept. 2.—German forces take Grodno.
 Sept. 4.—Allan liner *Hesperian* sunk off Fastnet.
 Sept. 7.—Grand Duke Nicholas is relieved of supreme command of Russian forces, the Czar assuming direct command in his stead.
 Sept. 8.—The Russians assume the offensive in Galicia and score slight success. The Germans in a new offensive in the Argonne district of France, gain over a mile of French trenches.
 Sept. 9.—The recall of the Austrian Ambassador, Dr. Constantin Dumba, is demanded by President Wilson. Germany delivers note to United States justifying the sinking of the *Arabic*.
 Sept. 10.—A financial commission, sent to the United States by England and France, lands in New York.
 Sept. 15.—The Teutonic forces occupy Pinsk.
 Sept. 18.—The German advance in Russia continues and city of Vilna is taken.
 Sept. 19.—Austro-German forces begin a bombardment of the Serbian frontier, preparatory to their announced intention of invading Serbia and opening a road to Turkey.
 Sept. 24.—Greece orders the mobilization of all forces.
 Sept. 25.—The long-heralded Anglo-French drive commences in the Champagne district and in vicinity of Lens. The first few days of offensive movement nets about 50 square miles of territory, many prisoners and considerable war munitions.
 Sept. 27.—Kut-el-Amara, Turkey in Asia, capture by British under General Townshend.
 Sept. 28.—England pledges armed support to all Balkan countries who will join the Allies.
 Sept. 30.—The French make additional gains in the Champagne district.
 Oct. 3.—The Allies land troops at Saloniki, Greece, with the view of aiding Serbian resistance against the Teutons.
 Oct. 4.—Russia sends ultimatum to Bulgaria, demanding answer in 24 hours.
 Oct. 5.—Ambassador Von Bernstorff delivers note to United States, disavowing the sinking of the *Arabic* and agreeing to give reparation.
 Oct. 6.—The Greek Premier Venizelos resigns from the Cabinet. Austro-German forces invade Serbia, while Bulgaria formally rejects the ultimatum of Russia. Allied forces commence advance into Serbia. French gain slight success in Champagne. King Constantine of Greece appoints Zaimis as Premier to succeed Venizelos.
 Oct. 7.—The Bulgarian port of Varna, on the Black Sea, is bombarded by Russian cruisers.
 Oct. 9.—The Austro-German forces capture Belgrade after a severe bombardment of several days. Bulgaria protests to Greece against landing of Allied troops at Saloniki.
 Oct. 10.—German attacks in vicinity of Loos repulsed with heavy losses. Russians driven back in Galicia.
 Oct. 11.—The Teutonic invasion of Serbia progresses and town of Smedereva is taken. Russian forces gain success over Austrians on Stripa River. Germans capture five miles of trenches from Russians west of Dvinsk. French gain ground in Champagne.
 Oct. 12.—Austro-Germans advance south of Belgrade on line of Orient railway. Edith Cavel, English nurse is executed by Germans on charge of aiding British and Belgians to escape from Belgium.
 Oct. 13.—Bulgarian army invades Serbia at three points. Greece announces position for present to be one of armed neutrality.
 Oct. 14.—French Foreign Minister Delcassé resigns from Cabinet. Austro-Germans advance to Posarevatz, Serbia. Greece renounces treaty with Serbia. Zeppelin raid over London results in deaths of 55 persons. British submarines in Baltic Sea sink six German merchant ships.
 Oct. 16.—Great Britain declares war on Bulgaria. Serbia declares war on Bulgaria. Russians continue offensive at Dvinsk.
 Oct. 18.—Allies land troops at Enos, in Turkish territory. Allies take Strumitza, Bulgaria. Bulgars and Teutons making important advances in Serbia.
 Oct. 19.—Italy declares war on Bulgaria. Bulgarians take Vrania. Allies repulse several German attacks in France. Germans take Duona. General Sir Ian Hamilton is recalled from the Dardanelles. Sir Edward Carson resigns from the British cabinet.
 Oct. 20.—Serbian capital transferred from Nish to Prisrend. Bulgarians and Teutons make further gains in Serbia. Italy resumes strong offensive against Austria.
 Oct. 22.—Serbians reported in serious plight. Bulgars take Komanova. French defeat attacks on west front. Teutons nearing Riga.
 Oct. 23.—Italian squadron helps Allies bombard Bulgarian port of Dedeagatch on Aegean Sea. Italian land forces resume strong offensive against Austro-Hungarian lines.
 Oct. 24.—Italians gain on entire front. Russian naval forces bombard Courland coast.
 Oct. 25.—Germans lose stronghold of "La Courtine" in Champagne. Germans advance in Serbia. Allied forces meet Bulgars in southern Serbia. German cruiser *Prinz Adalbert* sunk by British submarine. Austrian air-men raid Venice.
 Oct. 26.—Teutonic forces seize Valjevo and Petrovac; Bulgars are defeated by Allied forces near Strumitza.
 Oct. 27.—Teuton forces join Bulgars on Danube, open way to Turkey. French gain in Arras. Germans pierce Russian line at Dvinsk.
 Oct. 28.—French cabinet, headed by Viviani, resigns in body. Briand appointed Premier by President Poincaré.
 Oct. 29.—Briand names new cabinet.
 Nov. 1.—Germans take Kragevatz, and capture Serbia's largest arsenal.
 Nov. 3.—Bulgars and Germans gain in Serbia. Uzice captured by Germans.
 Nov. 4.—Greek cabinet resigns after Premier Zaimis loses in Parliament. Bulgars within six miles of Nish. Germans win back Dvinsk position.
 Nov. 5.—Greek King ignores war party. Teutons drive Serbs back in north and Bulgars beat French forces in south.
 Nov. 6.—Nish, the former capital of Serbia, captured by the Bulgarians.
 Nov. 7.—Teutons drive Russians back across Stripa River. Teutons retake trenches on western front.
 Nov. 8.—M. Skouloudis, appointed Greek premier. Germans and Bulgars close in on Serbia.
 Nov. 9.—Serious revolts reported in India. Lord Kitchener said to have been sent to quell rebels. French gain on west front after severe attacks. Italy to send troops to Serbia through Albania.
 Nov. 10.—Italian liner *Ancona* sunk by Austrian submarine. Over 200 persons missing. British renew attacks near Loos. Russians lose near Riga.
 Nov. 12.—Greek Chamber dissolved.
 Nov. 14.—Russians driven back across the Sty after prolonged fighting.

CHRONOLOGY—SECOND YEAR OF GREAT WAR—*Con'd*

- Nov. 14.—Russians driven across the Styx.
 Nov. 17.—Serbians forced to retire from Prilep.
 Nov. 22.—Anglo-Indian troops rout Turks at Ctesiphon, near Bagdad, but are obliged to retreat.
 Nov. 23.—Bulgarians capture Mitrovița and Pristina.
 Nov. 28.—British aeroplane destroys German submarine off Middlekirke.
 Nov. 30.—Prisrend taken, opening up railway between Constantinople and Berlin via Vienna, Belgrade and Sofia.
 Dec. 2.—British withdraw 70,000 troops from Gallipoli. Russians advance on Teheran, Persia. General Joffre made supreme commander of French armies.
 Dec. 6.—U. S. sends note to Austria-Hungary demanding disavowal for sinking the *Ancona*.
 Dec. 8.—Austrians force Serbian army in north through Montenegro. British army under General Townshend retreats to Kut-el-Amara.
 Dec. 11.—Turkish forces besiege Kut-el-Amara.
 Dec. 15.—General Sir Douglas Haig succeeds Sir John French as commander in chief of British forces in France and Belgium.
 Dec. 25.—Reichstag votes German war credit of \$2,500,000,000.
 Dec. 28.—Germans lose line of trenches to French in Alsace.
 Dec. 30.—Italian fleet defeats Austrian squadron off Durazzo and sinks two ships. Austria-Hungary disavows sinking of *Ancona*.
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 Jan. 4.—U. S. protests British interference with mails.
 Jan. 9.—Remainder of British force leaves Gallipoli.
 Jan. 10.—Herbert Samuel, British Postmaster-General, succeeds Sir John Simon as Home Secretary.
 Jan. 11.—Austro-Germans capture Mont Lovtchen, Montenegro stronghold.
 Jan. 12.—Austrians occupy Cetinje, capital of Montenegro.
 Jan. 16.—Russian army advances in Armenia.
 Jan. 28.—Germans take line of trenches from French, south of Somme River.
 Jan. 29.—Zeppelins raid Paris and kill twenty-three non-combatants.
 Jan. 31.—Zeppelins raid English towns and kill fifty-nine.
 Feb. 1.—German prize crew bring to Hampton Roads British steamer *Appam*, captured by Cruiser *Möve*.
 Feb. 16.—Russians capture Erzerum, a Turkish fortress.
 Feb. 17.—Franco-British forces complete conquest of Kamerun, a German province in Africa.
 Feb. 20.—Zeppelin is brought down by French near Revigny, France.
 Feb. 21.—House of Commons vote war credit of \$2,100,000,000, bringing total to \$10,410,000,000. Crown Prince, with army of 300,000, attack French trenches west of the Meuse.
 Feb. 23.—Lord Robert Cecil appointed War Trade Minister. Portugal seizes thirty-six German and Austrian interned merchantmen.
 Feb. 26.—Austrians occupy Durazzo, Albania evacuated by Italians.
 Feb. 27.—Submarine sinks French transport in Mediterranean with loss of 3,100.
 Mar. 2.—Russians take Bitlis, fortified city 110 miles south of Erzerum.
 Mar. 5.—Auxiliary cruiser *Möwe* returns to Germany after capturing or destroying fifteen allied vessels.
 Mar. 6.—Germans capture Forges near Verdun. British relief force reaches Essinn, seven miles from Kut-el-Amara.
 Mar. 8.—Germany declares war on Portugal for seizing interned ships.
 Mar. 14.—Grand Admiral von Tirpitz resigns and is succeeded by Admiral von Capelle.
 Mar. 16.—General Gallieni is succeeded by General Roques as French Minister of War.
 Mar. 18.—Submarine sinks French destroyer *Renaudin* in Adriatic.
 Mar. 24.—British Channel steamer *Sussex* torpedoed by German submarine.
 Mar. 27.—British gain at St. Eloi, Belgium.
 Mar. 28.—Allies hold war conference in Paris for future conduct of war.
 Mar. 30.—Germans capture Malancourt by gigantic infantry assaults.
 Mar. 31.—Germans take Vaux.
 Apr. 5.—Germans seize Haucourt, west of the Meuse.
 Apr. 8.—French withdraw from Bethincourt.
 Apr. 18.—Russian troops supported by Black Sea fleet take Trebizond.
- Apr. 22.—Sir Roger Casement is arrested while attempting to land with German arms in Ireland.
 Apr. 24.—Revolt breaks out in Ireland.
 Apr. 25.—German battle cruisers with submarines and Zeppelins attack English towns northeast of London.
 Apr. 28.—10,000 British troops besieged for 143 days at Kut-el-Amara surrender to Turks.
 Apr. 30.—Germans make fierce but unsuccessful attacks against Dead Man's Hill, west of the Meuse.
 May 1.—Irish rebellion ends.
 May 4.—Germany, under pressure from the U. S., promises to observe international law in regard to submarine warfare.
 May 17.—Austrians in Lake Garda regions cross Italian frontier.
 May 20.—British army on Tigris is joined by Russian Cossacks from Persian frontier.
 May 22.—French recapture part of Fort Douaumont.
 May 23.—House of Commons vote a \$1,500,000,000 war credit, bringing total up to \$11,910,000,000.
 May 25.—Military Compulsion Bill becomes a law in England, affecting men between eighteen and forty-one.
 May 26.—Bulgarian troops enter Greece and take possession of several forts.
 May 29.—Officials announce in London that forty-four air attacks have been made on England since war began, resulting in 409 dead and 1,005 injured, also, in three attacks by German warships, 141 were killed and 611 injured.
 May 31.—British and German fleets meet in battle off Jutland, Denmark. British lose fourteen war vessels and Germans eleven, 9,500 lives lost.
 June 4.—Russians under Brussiloff begin new offensive, capture 13,000 Austrians along 332 mile front.
 June 5.—British cruiser *Hampshire* sunk by mine off Orkney Islands on way to Russia. Lord Kitchener, Secretary of War, and entire staff lost. Russians take Lutsk and 15,000 Austrians.
 June 7.—Germans occupy Fort Vaux, five miles southeast of Verdun.
 June 9.—Italian transport *Principe Umberto* sunk by submarine in Adriatic.
 June 10.—Salandra Government resigns in Italy. Dubno, with 35,000 Austrians captured by Russians.
 June 12.—Germans penetrate advance positions, four miles from Verdun.
 June 14.—Encounter between Russian and German battle-ships in Baltic.
 June 15.—French win back Le Mort Homme and Caillette Wood. Boselli, new Italian Premier, forms cabinet.
 June 17.—Russians under General Lechitsky capture Czernowitz.
 June 18.—Radziviloff, twelve miles northeast of Brody, taken by Russians.
 June 21.—Russians occupy Radautz.
 June 24.—Victor Chapman, American aviator in France, killed while flying over German lines.
 June 28.—Germans remove 300,000 men from Verdun front for service on the Somme.
 June 29.—Sir Roger Casement is found guilty of high treason, and sentenced to die on August 3.
 July 1.—Italians regain one-third of territory lost since May 13. Franco-British offensive begins north and south of the Somme River and French advance.
 July 3.—Russian left wing advances to within twenty miles of Lemberg.
 July 7.—Russians begin offensive on Riga front.
 July 8.—Allies abandon Declaration of London and revert to blockade principles as provided by international law.
 July 9.—German merchant submarine *Deutschland* arrives at Baltimore from Germany.
 July 10.—French aeroplanes from Saloniki raid Sofia and Monastir. English capture three towns and 6,000 prisoners on the Somme.
 July 15.—Cossacks cross Carpathians and raid Hungary.
 July 18.—England publishes names of eighty-two firms as blacklist.
 July 21.—British take two more towns on the Somme.
 July 25.—Crisis in British Cabinet over provisional scheme for Home Rule in Ireland.
 July 27.—U. S. protests against British blacklist as illegal.
 July 28.—Charles Fryatt, British sea captain, executed by Germans for trying to ram a submarine in March, 1915. Russians capture Brody.
 July 29.—French establish new line south of Somme and bombard Peronne. German airships raid east coast of England.

BRIEF HISTORY OF THE GREAT WAR

FIRST YEAR OF THE WAR

THE DECLARATIONS OF WAR.

Austria declared war on Servia July 28, 1914, lighting the fuse that exploded the European powder magazine. Four days later, on August 1, Germany was at war with Russia, and the next day, without formal declaration, with France, Russia's ally. On August 5, the ninth day, Great Britain became a participant in the struggle, because of the violation of Belgium's neutrality, which had brought that country, also without formal declaration, into the field. On the same day Montenegro, the smallest of kingdoms, cast her lot with the Entente Allies. On August 23, Japan declared war on Germany in consequence of Germany's refusal to give up her Chinese possession of Kiau Chau, and three days later, August 26, Austria formally declared war against Japan. On October 29, Turkish warships bombarded several Russian ports on the Black Sea; Russia naturally accepted this as a declaration of war and the following day declared a state of hostilities to exist between herself and Turkey; on November 5, England and France were formally arrayed against the same power. On May 22, 1915, Italy declared war on Austria.

THE FIGHTING BEGINS.

On July 30, the world was shocked to read of the bombardment of Belgrade, the Serbian capital on the Danube, by Austrian river monitors. On August 2, German troops seized the narrow territory of the independent Grand Duchy of Luxemburg. France was already moving her field army toward the frontier, and Britain was straining every nerve to take her part. Such British troops as were available were mobilized as an expeditionary force.

THE FIRST FIGHTING IN THE WEST.

It was an essential part of the German plan of campaign to secure at the earliest possible moment an open way for an advance through Belgium into Northern France. To have delayed the first movements until the mobilization was complete would have risked the success of the operations, for the French would then be ready to come at once to the help of the Belgians.

THE BELGIUM PHASE.

The invasion of Belgium was begun on August 4, when a German column seized the crossing of the Meuse at Visé, where the first fighting on this frontier took place. A Belgian detachment defended the river crossing but was driven across the Meuse and during the fighting the town was set on fire. The main German advance was through Verviers towards the southern front of Liège. The German artillery opened fire on the outer forts of Liège after dark

in the evening, and during the night made repeated attacks on the Belgian trenches between the forts. These attacks were repelled and for a week the Belgians held one or two of the forts west of the Meuse but these were destroyed (August 13-15) by the first shots of the giant Krupp howitzers.

While the reduction of the Liège defences was being completed the German mobilization and concentration was taking place and, on August 15, the German forces were setting out on their dash to Paris. Masses of cavalry supported by infantry detachments conveyed on motor cars moved forward on a broad front, driving in the advanced Belgian troops. Here and there skirmishes took place, some of which were at the time exaggerated in the newspaper reports into serious engagements. Local Belgian successes against isolated detachments were represented as great victories. The only serious fight in those early days was the action at the village of Haelen, at the crossing of the river Gethe to the east of Louvain. On August 12, a Belgian division, about 10,000 strong, held the bridges over the little river, and was somewhat rashly attacked by a German cavalry force supported by an infantry brigade and some machine guns. The Germans tried to rush the bridges, but were beaten off with heavy loss.

Despite minor successes, it was, however, impossible for the Belgians to hold back the advancing tide of invasion, which swept irresistibly on. One force under von Kluck moved straight on Brussels; a second, under von Buelow, crossed the Meuse at Huy and advanced upon Namur, and a third came through the Ardennes and struck at the line of the Meuse above Namur. Brussels fell on August 20, the Belgian army fled to Antwerp and the German army, having passed the capital, started south for Paris. The Belgian phase ended on August 22, with the abrupt fall of Namur and the opening battles between the German armies and the Anglo-French forces of the north.

FRENCH DISASTERS.

The mobilization of the French army was begun on July 31, when the news of the German mobilization reached Paris. On Friday August 7, a French column from Belfort marched across the border, drove a German detachment out of Altkirch, and next day pushed on to and occupied Mülhausen, an important railway junction and a great industrial center. But the whole movement was premature, and the success was short-lived. Strong German forces were concentrated near Mülhausen, and on the 10th the French were forced to retire across the frontier.

After this check nothing serious was attempted until the mobilization had made further progress. By the end of the second week of August five

French armies had been formed, and were massing on a long line extending from the Swiss frontier on the right to that of Belgium on the left.

Meantime the British troops had arrived on the extreme left, and were concentrated in the vicinity of Cambrai. When the general advance of the French left began the British moved forward to a position inside the Belgian border, with its center at Mons.

This forward movement was part of a general advance of all the French armies. On August 15, a French column had pushed forward into the Ardennes and driven a German detachment out of Dinant on the Meuse, a few miles south of Namur. In the second week of August a general advance of the French center and left was ordered and Lorraine was invaded. But the Germans were everywhere advancing. A series of great battles took place on a front of about two hundred miles and, on August 24, the French armies from Switzerland to the Belgian frontier were retiring.

After the fall of Namur the British about Mons were struck in front and flank by overwhelming forces and retreated southward protecting the left of the broken French line.

On August 26 the Germans were in full pursuit of the Allies. All along the line west of Verdun the Allies were retreating and the Germans were scoring a series of successes. Still further to the west large masses of German cavalry, supported by infantry detachments conveyed on motor-cars, were moving into the north of France between the British left and the Channel forts. The Germans occupied Lille and Amiens, cutting the railway to Calais and Boulogne.

An important step was taken on September 5, when Great Britain, France, and Russia signed a treaty which pledged the three governments "not to conclude peace separately during the present war" and "when the terms of peace come to be discussed no one of the allies will demand conditions of peace without the previous agreement of each of the other allies."

A number of important political moves were made by the French about this time. On August 26, the French government, principally Socialist, which had wavered in the crisis and had even discussed giving up Paris without a struggle, was reorganized and the strongest men of France were included in the cabinet, ex-Premier Millerand being made minister of war.

Somewhat later, Gen. Joffre, the French Commander in Chief, dismissed scores of general officers from commands in which they had failed to distinguish themselves.

On September 3, the French government decided to remove from Paris to Bordeaux and

the German advance guards reached a point fifteen miles from the outskirts of Paris; but when General von Kluck, commanding the German right wing, attempted to change his course and march his columns across the front held by the British army, so as to strike between the British army and the French army next in line, he was attacked in flank by a new French army, specially formed for this purpose, while, at the same time, the British moved against his front and a second French army sought to separate his own left wing from connection with the German army next in line to the northeast. With great skill General von Kluck succeeded in extricating himself from this dangerous position, and fell back behind the Aisne.

BATTLE OF THE MARNE.

When the Germans halted their retreat on the lines of the Aisne, the French held a line from Paris to Verdun, cut deeply to the south. On this line General Joffre had been concentrating his forces since the opening defeats. Now the Germans were in turn threatened with envelopment.

The decisive point in the Battle of the Marne was about La Fère Champenoise, and the first heavy blow was struck here by General Foch. On September 9 the French defeated the Germans in a number of terrific engagements and drove all the German armies from Lorraine to Lagny back in a complete defeat which amounted to a rout at certain points. In this battle more than 3,000,000 were engaged, the losses were not less than 500,000 and the battle front was nearly two hundred miles long.

ON THE AISNE.

Between the Marne and the Aisne the Germans rallied and the position behind that river where they made their stand was admirably chosen. The fall of Maubeuge freed a German army which came south and reinforced von Kluck. In the next few days the Germans established a line from the Oise at Noyon to the Argonne. Every effort of the allies to drive them failed.

The French made a desperate effort to turn the Germans out by attacking their right flank and turning it, coming in about St. Quentin. But this failed, and in a few more days the line had begun to mount toward Belgium, each side meeting the other's efforts with new battalions. Meantime the Germans directed their attention toward making their position in Belgium secure by besieging Antwerp, which fell after a ten days' siege on October ninth.

Just before this surrender the British had been taken out of their trenches along the Aisne and sent north to fill the gap between the French

battle line and the sea. Their objective was Antwerp, but the fall of this town ruined their plans and they were again left to face an overwhelming attack by new German armies.

BATTLES OF FLANDERS.

Following the final "consolidation" of the allied line came a series of desperate battles in an attempt of the Germans to reach the ports of Calais and Boulogne, from which they could hope to control the English channel. Dixmude was taken and Dunkirk almost fell, the British were driven almost to Ypres, and the French were forced back near Arras; but the attacks ended November 15 when, under the eyes of the kaiser, the famous Prussian guard tried to take Ypres and failed with huge losses. The British held Ypres despite a 50 per cent loss and against very superior forces, by some estimated at three or four times their number.

At the end of this period the Germans were in possession of a large part of Belgium and had won a few thousand square miles of territory in France; but they had failed to take Paris or the Channel ports and they could no longer afford to neglect the Russian menace.

From November 15 to the end of the first year of the war, the western campaign from the German side was defensive, save for local offensive moves. The Allies repeatedly attempted to break this defensive; but on the whole no changes of strategic importance took place up to the close of the first year of the war.

ON THE EASTERN FRONT.

Wholly unlike the stubborn trench warfare that has marked all but the first phase of the western fighting has been the conduct of the war on the eastern front. Here campaign after campaign has been fought, with maneuvering of gigantic armies on a vast stage. Smashing blows have been delivered by both sides, but mainly by the Germans.

In the beginning the Austro-German military staffs erred in their estimate of the time needed for the concentration of Russia's army. Six weeks was the shortest period they gave.

RUSSIAN INVASION OF EAST PRUSSIA.

To the surprise even of the allies, the Russians moved within three weeks. As the German "fan" was opening through Belgium, the Russians pushed large forces into the Mazurian lakes district in East Prussia, while more than 300 miles away, on an air line, their forces were driving into eastern Galicia, and the advance guard of a huge army was engaging the Austrians at Krasnik, south of Lublin. Fugitives were coming into Berlin and Vienna telling of the terrors of Cossack raids.

The Germans had to weaken the force of their

blow against France by diverting large forces into East Prussia, while the Austrians had to guard Lemberg instead of driving home their advance against Warsaw.

Their very swiftness, however, brought upon the Russians one of the great disasters of the war. After other commanders had vainly striven to stop the czar's forces in East Prussia, the kaiser called from his retirement General von Hindenburg, a veteran officer on the retired list, and gave him command of an army which was concentrating about Posen for its liberation from the invaders. General von Hindenburg had during his active service commanded the German forces in East Prussia, and had an intimate knowledge of the country.

Gathering reserves, the garrisons of forts and what first line troops he could, von Hindenburg on August 27 struck the Russians at Tannenberg, south of Allenstein, and in three days practically annihilated an army of more than 250,000 men, capturing over 100,000 prisoners and killing and drowning tens of thousands more. Other swift blows that followed sent the forces under the Russian Gen. Rennenkampf back behind the line of the Kovno-Grodno forts.

RUSSIAN INVASION OF GALICIA.

Yet this disaster did not stop the advance of the Russians. They had defeated the Austrians at Rawaraska September 3, and taken Lemberg, they had won a battle near Lublin September 5, and on the twenty-second they took Jaroslav and invested the great fortress of Przemyśl. By October 22 they were conquering the Carpathian passes leading into Hungary, and their Cossacks were raiding well into the plains.

THE FIRST WARSAW DRIVE.

The German attempt to help Austria in this crisis took the shape of a sudden drive at Warsaw, through central Poland. Russia had made two great efforts, the chief endeavor directed against Austria, which had succeeded, the second against East Prussia, which had failed. But in doing this she had left central Poland bare of troops, and Germany now struck straight through the unguarded center at Warsaw in an attempt to seize this great fortress town. Hastily the Russians were forced to draw back from Hungary and the Carpathians and retire so far in Galicia as to raise the siege of Przemyśl (Peremyshl).

For ten days, October 14-24, a fierce struggle went on and the Germans won their way to within seven miles of Warsaw and five of Ivan-gorod, and forced a passage across the Vistula midway between these strongholds. But out from Novo Georgievsk fortress northwest of Warsaw the Russians suddenly launched 100,000 cavalry, which bent back the German left flank and compelled a retreat to the frontier.

GALICIAN CAMPAIGNS.

In consequence of the German reverse the Austrians suffered a succession of severe defeats. Their armies were broken in a big Russian victory at Jaroslav on November 5, and part were crowded back on Krakow and part into the Carpathian passes, already partly choked with snow. So severely shaken were the Austrians that the Russians reached the outer lines of the Krakow defenses, penetrating to Wieliczka, only seven miles from the city, on November seventh.

At this time Gen. von Mackensen came into public notice. General von Hindenburg had been placed in general charge of the eastern campaign, and to von Mackensen was intrusted another swift blow that would engage the Russians while the Austrians had time to recover.

THE SECOND WARSAW CAMPAIGN.

At the moment that the Russian armies were pushing toward Posen and their advance on November 7 had even captured Pleschen, on German soil southeast of that city, von Mackensen was gathering a large army based on the fortress of Thorn. He suddenly advanced, and on November 13-16 smashed Russian guarding corps on both sides of the Vistula and pushed on toward Lodz and Warsaw.

So rapid was the march in the difficult country that by November 22, von Mackensen's strong advance forces had penetrated to Brzeziny, about twelve miles east of Lodz. This rapidity, however, almost cost a great disaster, for a large part of this army, perhaps 110,000 men, was surrounded by the Russians, who hurried from south and north. The Germans cut their way out to a line west of Lodz after three days of most remarkable fighting.

Fresh forces were rushed up by the Germans, their lines were reformed, and on December 6 they took Lodz. Berlin then announced that the Russian army was broken and could not make a stand before Warsaw, but on the line of the Bzura and Rawka rivers the czar's forces stood, and six days of most determined attacks failed to dislodge them. Russians made heavy attacks early in January, and Germans again launched assaults early in February, but the lines here remained substantially the same up to July first.

GERMAN VICTORY IN MAZURIAN LAKES REGION.

While the chief armies had been engaged in the battles west of Warsaw the Russians had been slowly invading East Prussia again, and late in January had turned the head of the Mazurian lakes near Gumbinnen and were once more threatening Koenigsberg. Snow was deep on the ground and they took security in this fact.

Suddenly on February 28 a big German force

that had plowed through the snow descended on their right wing to the north of Gumbinnen and sent it flying in rout. Another force struck the left wing at Lyck, and then the two German columns converged upon the disorganized center. The Russians strove heroically to extricate themselves in a series of battles in the snow, but they lost more than 100,000 prisoners and most of their equipment.

It was this victory that paved the way for the German advance on Mitau and Riga, and its effect was felt along the whole Russian line. The Germans drove well into northern Poland, threatening the fortress of Osovietz and taking Pryzasnyz in the direction of Novo Georgievsk, while in Bukowina the Austrians retook Czernewitz and raided into Bessarabia.

AUSTRIAN REVERSES.

Von Mackensen's drive for a time relieved the pressure on the Austrians, and by mid-December their armies had been reformed with a leavening of German troops, and they undertook an offensive against the weakened Russian lines in Galicia, advancing from Krakow and the Carpathians. The Przemysl garrison of more than 100,000 men also made a sortie to break through and join the armies coming through the passes. The Austrian movements were slow and ill timed, however, and the Russians were able to concentrate against the three armies in turn, smashing the Krakow forces near Tarnow on December 25 and the others within a week.

So severely were the Austrians defeated that the czar's forces were able to establish themselves firmly on the Tarnow line—so as to threaten an advance on Krakow—to overrun Bukowina, and to drive ahead into the Carpathian passes, not to be dislodged again on this line until von Mackensen's drive in the spring.

With the surrender of the Austrians at Przemysl on March 22, after a five months' siege, the tide again turned for the Russians. Some 250,000 men and many guns thus released were hurried into the Carpathians, and in a campaign extending to April 14 they broke through Dukla, Lupkow, Rostok, and other passes and established themselves at Sztropko, twenty miles inside Hungary. They also steadily hammered the enemy before Uzsok pass and beat back all attempts of the Austrians to turn their left wing in Bukowina.

RUSSIAN REVERSES.

In the latter part of April, however, warning began to come from Petrograd of a great concentration by the Germans east of Krakow intended to strike at the point where the Russian line bent into the Carpathians.

The blow fell late in April, and after a great bombardment by such masses of artillery as had

never before been used by a field army, Gen. von Mackensen broke through the Russian position at Gorlice and Tarnow. He then began the smashing drive that retook Przemysl on June 3 and Lemberg on June 24, cleared the czar's troops out of most of Galicia, and led to a renewed advance toward Brest-Litovsk and the rear of Warsaw.

As von Mackensen drove eastward he compelled the Russians to give up all their hard won positions in the Carpathians and retire before the revived and more confident Austrians.

THE SUCCESSFUL WARSAW DRIVE.

Once Galicia was cleared the Germans inaugurated a smashing and successful drive on Warsaw from north, west, and south, the whole movement being under the general direction of Field Marshal von Hindenburg.

Early in the spring the Germans under General von Bülow had invaded northern Russia. This force worked its way southward and effected a junction with von Hindenburg's army.

From the south von Mackensen resumed his advance, his German forces working with the Austrians to inflict smashing blows upon the Russians from this direction. Step by step the Austro-German armies pounded their way toward the city from north and south, while on the west activities along the line of intrenchments that had so long held off the Germans in that section were resumed.

Great masses of Germans troops were now flung across the East Prussian frontier and before the apparently irresistible power of the Teutons engaged in this wide encircling movement, the armies of the Russian Grand Duke Nicholas began to fall back. Przasnysz, to the north of Warsaw, was occupied, and the German armies swept on, until by July 19 they had forced the Russians back to the line of the Narew River and were within twenty miles of their goal. The fortress of Ostrolenka was taken and the key to Warsaw on the north, the Novo Georgievsk fortifications, was approached. To the south Radom was occupied and the Russian lines of communication in the Lublin region threatened.

Then began a tightening of the German lines around the capital. The Teutons forced their way past the Blonie line southwest of the city, pushed their way across the Narew River, below Ostrolenka, and the battering at the fortified gates of the city was begun in earnest on August 3 by Bavarian troops under command of Prince Leopold of Bavaria.

SERVIA'S PART IN THE WAR.

Of the belligerent nations, none, save Belgium, has been tried more sternly than Servia, on whose behalf the great Powers went to war. Her efforts contributed substantially to the crippling of Austrian military efficiency. Three times

during the first year of the war huge Austrian armies invaded Servia, and each time they were hurled back, crippled and defeated. On December 2, 1914, the Austrians captured Belgrade and occupied a large portion of the country. But a week later the Serbian army, commanded in person by King Peter I, turned upon the invaders, pierced the Austrian lines and pursued their foes beyond the frontier. More than one-third of the Austrian army was lost, and Servia was not again invaded during the first year of the war.

ENTRANCE OF TURKEY.

Two events at the outset of the war paved the way for Turkey's participation. Nearing completion in British shipyards were two dreadnoughts with which Turkey intended to overcome the naval superiority of Greece and win back Aegean islands taken from her in the Balkan war. These the British seized. While Turkey was still fuming over the incident the German cruisers Goeben and Breslau slipped away from the British fleet in the Mediterranean and took refuge in the Dardanelles. Germany promptly turned over these vessels to Turkey under the guise of a sale.

The allies demanded that all the Germans on the cruisers should promptly be sent out of Turkey; Turkey demanded her dreadnoughts. While the dispute was going on several other troubles came up. Then on October 29 Turkish warships, including the Goeben and Breslau—commanded by German officers—made attacks on Odessa and other Russian ports in the Black Sea and on Russian shipping.

The Turkish government tried to smooth over this incident, but would not give in to demands of the allies that all German officers be dismissed from the navy. Consequently on November 5, Great Britain and France formally declared war.

In an effort to stir up the Mohammedans of Egypt, India, Persia, Algeria, and Morocco against the allies, the Shiekh-ul-Islam at Constantinople on November 16 proclaimed a holy war. Its only important effect was to lead to the repudiation of the sultan as head of the faithful by Mohammedan chiefs in those regions.

First hostilities consisted of naval raids by both sides in the Black Sea. Then Russia hurried an expedition toward Erzerum, in the Caucasus, in the hope of catching the Turks unprepared and of stirring up a general revolt of the Armenians. After heavy losses they were driven back to their own territory late in November, and in December the Turks sent a strong expedition against Tiflis. This came to disaster January 3-4, when the Russians annihilated an army corps near Ardahan and put two others to rout later. Since then the fighting in that region has been in the nature of a series of detached campaigns that

have spread below Tabriz in Persia and have yielded no large results to either side.

Meanwhile a British expedition from India seized the mouth of the Euphrates river and made its way up the valley to the mouth of the Tigris. Thus the British got control of a rich region and closed to European powers the last outlet to the Indian ocean, the Persian, control of which Germany has long sought with her Bagdad railway and other plans. Russia also has coveted this prize. Fighting occasionally took place in this valley, but the number of men engaged was small.

Great Britain also seized this opportunity to make secure her hold on Egypt, which she had long held as a nominal dependency of Turkey. A protectorate over Egypt was proclaimed on December 17, Khedive Abbas Hilmi was deposed and Prince Hameil Kemal was made sultan. The island of Cyprus, important in the command of the eastern Mediterranean, was formally annexed.

An ambitious attempt was made by the Turks, led by German officers, to raid the Suez canal and so cut the communications of Great Britain with the far east. During the winter large forces were gathered in Palestine, and late in January and early in February they advanced across the desert. Forces of Turks crossed the canal on February 4, but they were met by the native and Australian troops and severely defeated.

CAMPAIGN AT THE DARDANELLES.

From February 21 to March 18, a British and French fleet—composed of at least thirty-two powerful vessels, mostly of battleships of the predreadnought era, but including the superdreadnought *Queen Elizabeth*—hammered at the forts at the entrance to the straits. They silenced and practically destroyed the outer ones and on March 18 attempted to overwhelm those at the narrows. This latter attempt resulted in the loss to the British of the battleships *Irresistible* and *Ocean* and to the French of the battleships *Bowet* and *Gaulois*, and in serious injuries to other big ships.

Under a rain of shells from the warships the first troops made landings at five places on the western end of the Gallipoli peninsula and on the south shore of the straits on April 25. It was one of the most difficult undertakings in the history of war, for the Turks had prepared elaborate entanglements even in the water, and 50,000 men, with large forces of artillery, put the invaders under a deadly fire. Nevertheless, within four days an army of some 80,000 had been securely landed and a system of supply had been arranged.

Then followed most desperate and continuous fighting. The Turks bravely attacked again and again in attempts to drive the invaders into the sea and the allies launched a series of general

assaults that gradually won them a way through the maze of defenses and brought them close to the tops of the hills overlooking the forts of the narrows. The British battleship *Goliath* was sunk in these operations on May 11.

In the middle of May the allies seemed to be in a serious plight because the fleet was compelled to cease its active support of the army in order to avoid a German submarine that had made its way through the Mediterranean. This undersea boat sunk the battleship *Triumph* on May 25 and the *Majestic* and *Agamemnon* on May 27. But in the attacks made by the army throughout June and July the allied fleet again took part.

ENTRANCE OF ITALY.

A substantial accession to the cause of the Allies was gained when Italy at last declared war on Austria on May 22. Soon after that date Italian troops began operations along the Austrian frontier, but up to the close of the first year of the war had been unable to break through the Austrian lines.

THE WAR AT SEA.

One of the most important aspects of the war has been the triumph of British sea-power, which has never been seriously menaced, even by Germany's clever use of submarines. It would have been impossible for German men-of-war to survive on the surface of the waters. The several German commerce-destroyers which were at large when the war opened were run down and sunk. One great achievement of note stands to the credit of the German navy—the action between the squadrons of Admiral Count von Spee and Rear-Admiral Sir Christopher Cradock off Coronel, Chili, which was fought in heavy weather, November 1, 1914.

Von Spee made skillful use of his superior batteries, and with small loss to himself sunk Cradock's flagship, the cruiser *Good Hope*, and the cruiser *Monmouth*. None of the crews of the ships that went down was saved. The cruiser *Glasgow*, the other fighting unit in Cradock's fleet, was damaged but not destroyed.

Strong British squadrons were sent to hunt down the Germans, and the one commanded by Admiral Sturdee met von Spee at the Falkland Islands December 8. The Germans had been driven from the Pacific by Japanese and other warships and undertook a raid on the Falkland naval station. As the ships steamed toward the harbor mouth they were attacked by the battleship *Canopus*, the battle cruisers *Invincible* and *Infexible* and four smaller cruisers. All the German vessels but the *Dresden* were sunken, and this met its doom March 22, when the cruisers *Glasgow* and *Kent* found it in the neutral waters of Juan Fernandez Island. On account

of the violation of her waters in this last engagement Chile made a strong protest to Great Britain and received a full apology.

In the North Sea only two real engagements took place in the first year of the war, the waters having been so thickly strewn with mines by both sides that it was dangerous for the fleets to attempt any ambitious maneuvers.

Early in the war, August 28, a British squadron under Admiral Beatty made a daring raid on the German vessels sheltered under the guns of the Helgoland forts. At least six battle cruisers and many light cruisers and torpedo boats engaged in this venture. The British asserted that they sunk at least two destroyers, but the Germans admitted only the loss of the cruiser *Ariadne* and a destroyer.

Following raids by German battle and armored cruisers on the east coast of England in November and December, a German squadron was intercepted on such an errand January 24 and engaged by British battle cruisers. The armored cruiser *Bluecher* was sunken and others were badly damaged. The Germans asserted that the British battle cruiser *Tiger* was sunken, but the British official and unofficial reports agreed that the *Tiger* got to port badly damaged.

In the Baltic there have been several brushes of Germans and Russians. Although the great German fleet can easily control this sea, few chances have been taken by the largest ships because of the danger from mines and submarines. In a battle October 11 the large Russian cruiser *Palada* was sunken. In skirmishes in the Black Sea some small warships have been sunken.

Of even greater interest than these operations were the dramatic exploits of the German raiders that were loosed on allied commerce in the beginning of the war. It was eight months before they were all rounded up, and they did damage that ran well above \$100,000,000.

Most famous of these raiders was the little *Emden*—of less than 14,000 tons but of twenty-six knots speed—which coursed the waters of the far east and did damage estimated at \$20,000,000 up to November 10, when the Australian cruiser *Sydney* caught it at Cocos Island, in the Bay of Bengal, and drove it ashore.

This ship destroyed at least twenty-two vessels. It entered the Bay of Bengal September 10 and sunk six of them. It appeared off Calcutta September 27 and went to other harbors and spread terror among all the shipmasters in the east.

The most remarkable exploit was its invasion of the harbor of Penang. Flying a Japanese flag, and with a fourth false funnel rigged, it passed the forts. It went between a British destroyer and the Russian cruiser *Jemtschug*, apparently to come to anchor, and suddenly torpedoed both. Then it escaped.

A large fleet of fast cruisers was sent out to find it and finally it was rounded up as it tried to destroy the wireless station at Cocos Island. Some members of its crew, left behind as the *Sydney* approached, made their way to Arabia and finally arrived at Berlin.

Two of the raiders, unable to keep at sea longer, sought refuge at Newport News, Va.—the *Prinz Eitel Friedrich* and the *Kronprinz Wilhelm*.

SUBMARINE TRIUMPHS.

In submarine warfare the balance sways in Germany's favor. By long odds, the most notable submarine feat of the war was the sinking of the British armored cruisers *Aboukir*, *Cressy*, and *Hogue* by the German submarine *U-9*, commanded by Captain Otto Weddigen, on September 22, with a loss of more than 1,500 lives. But this disaster taught the British how to safeguard their ships against submarines, and in future it was much more difficult for the underwater raiders to get at them. Weddigen himself was lost with all his men on the giant new submarine *U-29*, when she was sunken by a British merchantman on March 25, 1915.

Among the other triumphs of German submarines was the destruction of the British dreadnought *Audacious*, off the Irish coast, October 27, 1914, by means not yet definitely known, and of the battleship *Formidable*, in the English Channel, on New Year's Day, 1915, with a loss of 700 lives. The British battleship *Bulwark* was blown up while at anchor off Sheerness on November 26, with all her crew, but it is supposed that this was due either to spontaneous combustion in her magazines or to an infernal machine. The Austrians have been busy with submarines since Italy entered the war. On July 7 they sunk the armored cruiser *Amalfi*, and on the 19th the *Garibaldi*, which latter, however, accounted for the submarine which struck her. An Austrian submarine was also credited with the sinking of the French armored cruiser *Léon Gambetta* in the Adriatic, with a loss of 600 lives, on April 27.

On their part, the British submarines have scored several brilliant feats, Commander Max Horton, in the submarine *E-9*, late in September sunk the German cruiser *Hela* in the Helgoland Light, and on October 6 took his craft up the mouth of the Ems, where he attacked the biggest game in sight, which happened to be a mere destroyer. On July 2, while working in cooperation with the Russian Baltic fleet, he sunk the German battleship *Pommern*. Another British submarine dived under five rows of mines at the Dardanelles and sunk the Turkish battleship *Masudieh* on December 13. In May a sister craft of this vessel repeated the trick, and showed her periscope at the entrance to the Golden Horn, sinking every Turkish craft she met.

THE SECOND YEAR OF THE WAR

THE GERMAN SUCCESSES IN RUSSIA

The beginning of the second year of the Great War found the German army on the eastern front, at the doors of Warsaw. The drive against Russia was in full swing. In rapid succession the fortresses that barred the advance of Hindenburg from East Prussia, fell; von Mackensen stormed on between the Pripet Marshes and the Vistula. When Warsaw fell on August 5, Ivan-gorod and Novo-Georgievsk followed, and the whole Russian line reeled backward to Brest-Litovsk and Kovno.

But there was no halting there. North and south the peril of envelopment continued, and so the Russian army went back behind the Dvina, behind the Pinsk Marshes, and the Volhynian fortresses of Dubno and Lutsk fell to the Central Powers. Along this line the Germans applied the greatest pressure, but to no avail—the Russians escaped being enveloped.

GERMAN FAILURE

From the standpoint of the object for which the German army was striving, their brilliant successes against Russia were a decided failure. It is very generally admitted that in this war, in fact in any war, the mere acquisition of territory is of small moment unless it brings with it the disabling or the capture of an army. Men are the only things that count. The German strategy in this Russian move was to seize the first favorable opportunity to eliminate Russia. On no other pretext was such a forward move justifiable. It carried the Germans hundreds of miles from their bases, lengthened their lines of communications, brought them into a country where it was impossible to live on the soil. What object could the Germans have had to gain, but the Russian Capital and the elimination of Russia? In this Germany had failed.

RUSSIA'S OFFENSIVE

Until June, the Eastern Campaign was in a deadlock, neither side gaining any important victories. Then there came a sudden change.

On June 4, Russia suddenly became awake. With a great supply of men and ammunition, and commanded by General Brusiloff, the Russian army struck out from the Volhynian fortress of Rovno, against, what were thought to be, impregnable Austrian positions. The Austrian lines were rolled back, and prisoners by the thousands fell into Russian hands. Soon the line of the Stokhod River was reached, and there a momentary check was imposed on the advancing Russians. They replied, however, by shifting the attack southward against Bukowina. Here their successes continued. On June 17 Czernowitz was taken, the gates to the Austrian Crownland were opened, and the Russians poured through the gaps. In an incredibly short

time all Bukowina had been cleared and the Russians were firmly established on the crests of the Carpathians. Then the Russians again shifted their attack to the southern Volhynian line, moving toward Lemberg. On July 28, Brody, which is 58 miles northeast of Lemberg, was captured. About the same time General Kalendine defeated the Austro-Germans 20 miles southeast of Kovel and captured 20,000 prisoners. The Austrians, by bringing up reinforcements, succeeded in checking the Russians along the entire front.

THE BALKAN CAMPAIGN

The Austrians made several attempts to invade Serbia in the first year of the war, but each time were driven back. On October 5, however, aided by several German army corps and commanded by von Mackensen, they again invaded Serbia. By October 9, they had forced the passage of the Danube and the Save, captured Belgrade, and were in position to advance into the country.

BULGARIA ENTERS THE WAR

On October 11, the Bulgarians, who had been dickering with both of the hostile groups of nations, decided that their profit could best be obtained by joining the Teutonic Powers—an arrangement which, moreover, enabled them to secure revenge for Serbia's share in the Second Balkan War of 1913. They invaded Serbia and slowly gained ground. On November 6 Nish, the former Serbian Capital, was captured, and on November 30 they took Prizrend. The Austro-Germans, forcing the Serbians before them, joined the Bulgarians at Prizrend and opened up railway connections between Constantinople and Berlin.

Awaking to the seriousness of the situation, England and France hastily started troops for Saloniki, but they were too late to do more than help a portion of the Serbians make good their retreat.

The wreck of the Serbian army escaped into Albania and Montenegro, and after a period of recuperation was brought around to Saloniki where it joined the augmented French and British armies at that port, forming, with them, a constant threat against the German communications with Turkey.

MONTENEGRO INVESTED

In the course of the conquest of Serbia, the Teutons sent an army into Montenegro, which tiny kingdom had been fighting the battles of the Slavs, to the best of her limited ability. On January 12, the Austro-Germans captured Cetinje, drove out King Nicholas and his family, and set up Austrian rule in the capital.

GREECE AND THE WAR

The Greeks, who were bound by treaty to protect Serbia against a Bulgarian attack, made many attempts to join the Allies, but were held off by their King, who is a brother-in-law of the German Emperor.

RUSSIAN ACTIVITIES IN TURKEY

On September 7 the Grand Duke Nicholas was replaced by the Czar as Commander of the eastern armies and was transferred to command the armies of the Caucasus.

In January the Grand Duke began operations against the Turks. He achieved a decisive victory, crushing the center of the Turkish sixty-mile front, near Lake Tortum, and pursuing them to the Erzerum forts. About this time Field Marshal von der Goltz was appointed Commander in Chief of the Turkish forces in the Caucasus.

On February 16, Erzerum surrendered to the Russians, after five days' fighting. This achievement surprised the world. The astonishing feature was that the campaign was undertaken in a wild tangle of mountains and in the dead of winter, when it seemed that an army could not possibly operate without an elaborate system of railroads behind it. In that country there are no railroads. Dependence for supplies has to be placed upon miserable dirt roads which, at wide intervals, traverse the country. The Russian fleet, of course, controlled the Black Sea, and it was by this channel that supplies were transported. But even from the Black Sea, a long trip overland was necessary. Thus, the two most spectacular achievements on the Allies' side fell to Grand Duke Nicholas and the Russian army, they also having captured Przemyśl on March 22, 1915.

The surrender of Erzerum was followed by a period of apparent inaction. On April 18, however, the Russians succeeded in capturing Trebizond. The Russian right flank was evidently keeping up with the center. Then followed a period of inaction, which was to be followed by the most remarkable march in history.

Taking Baiburt, defeating the Turks at Mamakutan, the Russians pressed forward. On July 25 they were in possession of Erzingan, the last of the Turkish bases east of Sivas, and practically cleared Armenia of Turks. Russia now occupies about 30,000 square miles of Turkey in Asia including seven fortified towns. All this was achieved in about seven months of fighting.

THE GALLIPOLI CAMPAIGN

One of the greatest disappointments in the war, was the failure of the Allies on the Gallipoli Peninsula. The object of this undertaking was

to force the passage of the Dardanelles, take Constantinople, and in this way give Russia an outlet into the Mediterranean Sea. If this were accomplished, Russia would have shorter communications with her allies. But the undertaking was not successful. On August 6, a new army of Australians and New Zealanders made a landing at Anzac Cove. Except for a few small gains, the Turks held them along the coast until December, when the Allies realized that their efforts were fruitless, and withdrew over 70,000 Colonial troops. The remainder of the allied forces were withdrawn on January 9. After an attempt of nine months, with a British loss of 115,000, and a French loss of 70,000, the campaign was given up as a failure.

BRITISH OPERATIONS IN ASIA

Coincident with the attack upon the Dardanelles, a British expedition was dispatched to Mesopotamia, at the head of the Persian Gulf, with Bagdad as its objective. The British were successful at first, capturing Kut-el-Amara, on the Tigris, on September 27. On November 22, an army of 20,000 Anglo-Indians was pushed up to Ctesiphon, eighteen miles from Bagdad, where it defeated 60,000 Turks, but was obliged to retreat for lack of supports and supplies. Pursued by the Turks, who had been reinforced, the rearguard of this force, some 10,000 men, under the command of General Townshend, intrenched themselves in Kut-el-Amara. Here they held out from December 11, 1915, to April 29, 1916, when starvation compelled them to surrender. Several British attempts to relieve Kut-el-Amara ended in failure. The only excuse for these two disasters to the British arms is that they served to divert the Turkish military strength from a threatened drive across the Suez Canal into Egypt.

THE WESTERN FRONT

No important action was seen on the western front until September 20. After many months of preparation, and a relative quiet which had lasted since June, 1915, the long promised Allied attack upon the German lines began. The French in Champagne, and the British in Artois, launched terrific attacks.

In ten days of bitter fighting the French advanced some three miles on a front of eighteen, took above 25,000 prisoners and many guns; they penetrated two lines of German trenches and at one point actually broke through the third and last.

But the result was nothing. The German line was restored, the French attacks were beaten down, the whole offensive was really over in three days, and in a week, the world knew that the French had failed, although the considerable

number of prisoners and the large capture of guns misled many into estimating as a victory what had been a defeat, for the German line had held.

In Artois the British accomplished even less. Their initial success was considerable. There was a moment when the capture of Lens seemed inevitable, but old faults reappeared. The blunders of Neuve Chapelle were repeated; supports did not come up; Loos, won on September 25, had to be surrendered; for great sacrifices in life, there was little to show. The failure at Loos cost Field Marshal Sir John French his command, and on December 15, General Sir Douglas Haig succeeded him as Commander in Chief of the British forces in France and Belgium. It also condemned the British army to inaction, and the British people to depression for many months.

Again the situation at the western front settled down to artillery duels, neither side gaining any advantage, until the attack on Verdun.

VERDUN

On February 21 the German Crown Prince, commanding an army of 300,000, attacked the forts surrounding Verdun. This attack suddenly claimed the attention of the world, and for many weeks seemed certain to end in a crushing French defeat.

But Verdun, after the first surprises were over, held. The broken lines were restored, as French reinforcements came in time. Before the old forts a second line was erected and the German advance was halted. The repulse of March 9 was fatal to German hopes for a sudden and sweeping victory, a piercing of the line, such as France had sought and missed in Champagne in September. The repulse of April 9 ended the possibility of success by any sudden and tremendous general thrust. Henceforth Verdun fell to the level of a siege operation and Germany advanced by yards, over mountains of her own dead, while on the hills across the Meuse new French lines sprang up until the Verdun salient became the strongest sector in the French front.

THE SOMME OFFENSIVE

While the Germans were making a great effort to capture Verdun, the British and French were preparing for another drive. On July 1, the long expected offensive began north and south of the Somme River. The British advanced about five miles and took a number of villages between July 10 and 22.

The French advanced over six miles, capturing five towns. German reinforcements from before Verdun arrived and halted the advancing Allies. This is the situation, on the western front, at the close of the second year.

THE AUSTRO-ITALIAN CAMPAIGN

There was but little important action on the Italian frontier, until April 15, 1916, when the Austrians concentrated their army, to begin a new offensive against Italy. Before this time the Italians had succeeded in gaining advance positions in the Trentino. On May 13, the Austrians launched their great offensive, forcing the Italians to abandon their positions and taking many prisoners.

Early in June the Austrian drive was slackened by the Russian offensive on Austria's eastern border. The Austrians, in order to stop the advancing Russians, moved many troops from the Italian frontier for service against the Slavs. This, however, was not done until the Austrians had advanced some miles on Italian soil. Then the Italian counter-offensive began. At the end of the second year we find them continuing their offensive, regaining much ground lost to the Austrians.

PORTUGAL ENTERS THE WAR

When, on February 23, Portugal seized 36 German and Austrian interned merchantmen, Germany sent her an ultimatum, which demanded immediate release of these vessels. With the refusal of Portugal, Germany declared war on March 8. Although she does not take a very active part against Germany in Europe, she greatly aided the Allies in the conquest of German colonies.

LOSS OF GERMAN COLONIES

Of 1,027,820 square miles of German overseas possessions, only 384,180 square miles remain. The German Colonials, fighting against great odds, without any help from the Fatherland, and with no chance for reinforcements, were forced to surrender their land to the allied armies. One by one, the colonies were taken, until at the end of the second year only part of German East Africa remained in German hands. Even this territory was gradually being closed in by the armies of General Smuts, in direct command of the Union of South Africa troops, aided by French, Belgian and Portuguese Colonial armies.

THE BATTLE OFF JUTLAND

The greatest battle in naval history, in tonnage and calibre of guns employed and in the loss of tonnage and lives, was the engagement between British and German warships, west of Jutland Bank in the North Sea, off the coast of Denmark.

On the afternoon of May 31, the British battle cruiser squadron, under Vice-Admiral Sir David Beatty, and the fifth battle squadron, under Rear Admiral Hugh Evan-Thomas, encountered the German first and second light cruiser squadrons, later joined by the entire high seas fleet.

In the evening, Beatty was reinforced by seven divisions of the British battle fleet under the Commander in Chief, Admiral Sir John Jellicoe. Over 9,500 lives were lost in this engagement, both sides claiming victory.

GERMAN RAIDERS

German warships have made a number of daring raids on the English coast, but have accomplished nothing thereby save the destruction of lives of non-combatants and considerable property. A German auxiliary cruiser, the *Möwe* passed the blockade and, in waters outside the War Zone, did great damage to enemy shipping and finally returned in safety to her home port.

SUBMARINE OPERATIONS

During the second year, the German submarines did but little damage to the allied navies. Except for torpedoing a few transports, they confined their warfare to attacks upon unarmed merchantmen, sinking them without warning.

LOSS OF WARSHIPS

Up to August, 1915, according to Senate Document 3 of the Sixty-fourth Congress, the allied navies had lost a total of 71 warships, with a tonnage of 326,885. Of these Great Britain had lost 42 ships of 254,494 tons—8 battleships, 3 armored cruisers, 4 protected cruisers, 4 light cruisers, and 24 smaller craft; France 12 ships of 28,027 tons, Russia 6 ships of 21,775 tons, Japan 7 ships of 4,801 tons, and Italy 4 ships of 17,758 tons. Germany, Austria, and Turkey had lost 89 ships, with a tonnage of 262,791. Of these Germany had lost 69 ships of 238,904 tons—1 battle cruiser, 5 armored cruisers, 10 protected cruisers, 3 light cruisers, and 50 smaller and auxiliary craft; Austria 7 ships of 7,397 tons, and Turkey 13 ships of 16,490 tons.

In the second year of the war, official records in regard to the losses of submarines and auxiliary cruisers are incomplete, and transports are not scheduled as warships. In this year the allies lost 41 ships with a tonnage of 202,600, and the Central Empires, 33 ships with a tonnage

of 125,120. Great Britain's loss was 34 ships—2 battleships, 3 battle cruisers, 3 armored cruisers, 7 protected cruisers, 2 light cruisers, and 17 smaller and auxiliary craft, with a total of 195,900 tons. Germany's loss was 26 ships—4 battleships, 1 battle cruiser, 6 protected cruisers, and 15 smaller craft and auxiliaries, with a total of 114,620 tons.

MERCHANT VESSELS SUNK BY GERMAN SUBMARINES

During the first year of the war, or from February 18, 1915, when Germany began her submarine warfare against merchantmen, till August 1, 1915, German submarines sank 205 merchant craft belonging to the Allies and 59 to neutral nations, with a total loss of 1,641 non-combatant lives.

In the second year of the war, Austrian and German submarines are responsible for the loss of 983 noncombatant lives on board of 518 merchant craft, of which over 72 belonged to neutral nations.

POWERS WHICH ARE NOW ENGAGED IN THE GREAT WAR OF THE WORLD

July 28, 1914—Germany declared war on Serbia.

- Aug. 1—Germany declared war on Russia.
- Aug. 3—Germany declared war on France.
- Aug. 4—Germany declared war on Belgium.
- Aug. 4—England declared war on Germany.
- Aug. 6—Austria declared war on Russia.
- Aug. 7—Montenegro declared war on Austria.
- Aug. 10—France declared war on Austria.
- Aug. 12—Montenegro declared war on Germany.
- Aug. 12—England declared war on Austria.
- Aug. 15—San Marino declared war on Germany and Austria.
- Aug. 23—Japan declared war on Germany.
- Aug. 25—Portugal declared war on Germany.
- Aug. 25—Austria declared war on Japan.
- Nov. 5—England declared war on Turkey.
- Aug. 27, 1916—Roumania declared war on Germany.

FACTS SHOWING THE POWER OF 42 CENTIMETER MORTAR 16.5 HOWITZER

Weight of gun proper.....	97-4/5 tons
" platform.....	41-1/4 "
Length of barrel.....	16 ft., 5 in.
Weight of shell.....	885 lbs.
Number of parts in the gun.....	172
Railroad cars needed to transport it.....	12
Foundation must be sunk to depth of.....	26 feet
Liege was shelled from distance of.....	14 miles
Casualties caused by 1st shot.....	1,700

Casualties caused by 2nd shot.....	2,300
Namur and Maubeuge held out each.....	2 shots
Huy.....	1 shot
Fitting up gun takes.....	25-26 hours
Adjustment of range by other guns lasted.....	6 hours
Gun discharged from distance of.....	300 yards
All windows broken within radius of.....	2-1/3 miles
Each shot costs.....	\$2,618
To serve gun it takes.....	200 men

The gun crew proper have protectors over their mouths, eyes and ears, and lie on their stomachs to keep from being injured by the shock of the discharge. The ground of the gun

emplacement is mined and the engineer in charge is sworn to blow up the gun, if it is in any danger of capture.

GAZETTEER OF THE UNITED STATES

AND

NON-CONTIGUOUS TERRITORIES

Maps show more important cities and towns, navigable streams, canals, principal mineral deposits, and highest point of land with elevation in feet; chief mountain ranges are named.

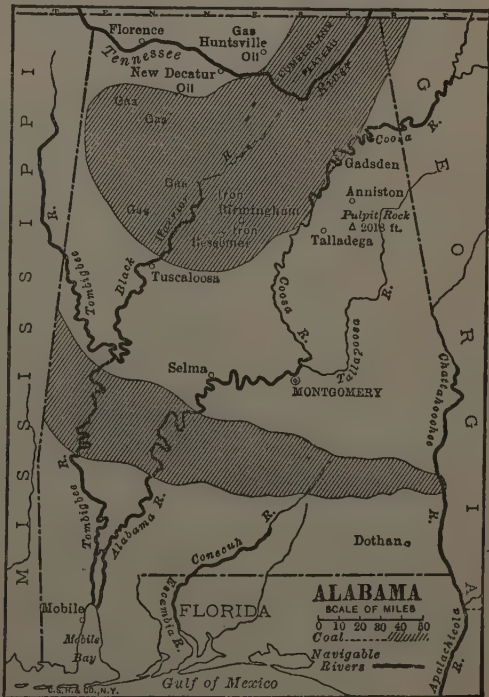
ALABAMA

ALABAMA, one of the East South-Central States of the Union, lies between latitudes 30° 13' and 35° N., and longitudes 84° 48' and 88° 30' W. It is bounded on the N. by Tennessee; on the E. by Georgia and Florida; on the S. by Florida and the Gulf of Mexico; on the W. by Mississippi. Alabama is 336 m. in extreme length, 220 m. in width, and ranks twenty-eighth in area (51,998 sq. m., of which 719 sq. m. are water surface) among the states of the Union.

Relief. All the leading features of the Appalachian system may be traced in Alabama, in which state they terminate. The surface rises from tide-level in the vicinity of Mobile Bay to elevations of 1800-2000 ft. in the northern counties of the state. All of the southern and western portions of the state lie within the Coastal Plain, which is slightly rolling and hilly near the center of the state, and slopes gently southwest and south to the Mississippi River and the Gulf coast. The Piedmont Plateau district, with a general elevation of about 1000 ft., occupies the east central part of the state, including Randolph, Clay, Tallapoosa, and Chambers Counties. The southern extremity of the Appalachian Mountain system occupies the northern third of Alabama, giving to that portion of the state a diversified and picturesque surface. A number of mountain ridges enter the northeastern part and extend in a general southwesterly direction towards the center of the state. They range in elevation from 800-2000 ft., are characterized by flat tops, and inclose numerous limestone valleys. These valleys are links in the chain of valleys which in their entirety make up the Great Appalachian Valley, the Coosa Valley being the southernmost link. In the extreme north the Cumberland Plateau extends across the state from east to west. It is rugged in its eastern portion and much dissected throughout by the numerous streams flowing to the Tennessee River, towards which the plateau gradually slopes. The country bordering both shores of the Tennessee is gently rolling, and lies at an elevation of 400-700 ft. above the sea.

Drainage. The northern part of the state is drained by the Tennessee River and its tributaries. South of the plateau region the drainage is almost wholly to the southwest. The Coosa River from Georgia joins the Tallapoosa from

the Piedmont section, and the united rivers form the Alabama. The Tombigbee River, entering the state from Mississippi near the middle of its boundary with Alabama, unites with the Black Warrior, at the point where Green, Sumter, and Marengo Counties meet. Continuing its southerly course, the Tombigbee joins the Alabama at the southern point of Clarke County, and their waters are discharged into Mobile Bay by the Mobile and Tensas Rivers. The Chattahoochee River forms part of the Georgia boundary. Mobile Bay, an inlet from the Gulf of Mexico, extends northward into the state for about thirty-five miles. It varies in width from seven to nineteen miles. At its entrance is Dauphin Island, and at its head is the city of Mobile, the leading commercial town of the state.



Climate. The climate of Alabama is fairly temperate and equable. The summer temperature rarely exceeds 95° F., but the uniformity of the summer heat renders the climate very oppressive to those who are not acclimated. The hilly regions are cool, and the islands of Mobile Bay have delightful sea breezes. The highest temperatures are recorded in the south, Mobile having an annual mean of 67° F. with a summer mean of 81° and a winter mean of 52° F. At Montgomery the annual mean is 66°, with a winter average of 49° and a summer average of 81° F. The annual precipitation is about 60 in. in the south, and about 50 in. for the rest of the state. Snow occurs about once each winter, but soon disappears. The prevailing winds are from the south.

Agriculture. The soils are extremely varied, ranging from dark mucky loams along the immediate coast line to sands, sandy loams, and the heavy clay soils of the inland regions. In the south-central part a strip of dark calcareous prairie extends almost due east and west from Montgomery County to Sumter County, where it crosses the line into Mississippi. This section is known as the "Black Belt," and also as the "Cotton Belt." Between this section and the Tennessee Valley is the mineral region, with sandy loam soils of varied fertility. North of the mineral section is the cereal belt, comprising the Tennessee Valley and counties beyond, whose soils are the red clays and dark loams of the river valley. More than three-fifths of the state's entire land area is in farms, and agriculture gives employment to nearly 65 per cent of the population. Cotton is the chief product, its value being nearly twice as great as the aggregate value of all of the other crops. Next in importance are: Indian corn, wheat, oats, and hay. Besides the staple fruit crops, Alabama farmers have recently experimented with pecans, Japanese persimmons, and Satsuma oranges, and many cotton farmers are taking up horticulture and market-gardening because of the ravages of the boll-weevil.

Forests. Approximately three-fourths of the total area of the state is woodland. The principal trees are the yellow pine, oak, and poplar; and the state's output in forest products, including turpentine and rosin, is very great.

Fisheries. The state has oyster, shrimp, terrapin, and turtle fisheries, all being under the supervision of a state commission, whose duties include the preservation and development of the fisheries, and the control of the canneries of sea foods.

Minerals. The mineral wealth of Alabama is very great, and in the production of iron ore of all classes she ranks third in the Union. The iron industries are centered in the Birmingham district. Alabama ranks sixth among the coal-producing states. Gold, silver, lead, copper, tin, and beaunite have been discovered, but are not worked. Natural gas and petroleum were discovered at Fayette in 1909, but the field is

still undeveloped. Mineral springs are very numerous, and a little mica is found.

Manufactures. The state is traversed by nearly all the trunk line railroads of the South, and most of these pass through Birmingham, the principal manufacturing center of the state. The Alabama and Tombigbee Rivers with their tributaries furnish facilities for navigation. Mobile is one of the most important seaports on the Gulf of Mexico, and the two ports of New Orleans and Pensacola in the adjoining states are easily accessible by rail. Besides the advantages just mentioned, the growth of manufactures in Alabama during the last thirty years has been due largely to the development of rich mineral resources, particularly in the northern part of the state. The close proximity of the coal fields to the iron mines has made the iron industry very prosperous. The great abundance of available coal and extensive forest resources have given a marked impetus to other manufacturing industries. The leading industries of the state (in the order of their value) are: lumber and timber products, cotton goods, manufactures of iron and steel, foundry and machine shop products, cottonseed-oil and cake, coke, cars and general shop construction by steam railroad companies, fertilizers, and flour- and grist-mill products.

Education. The public school system is supported by state and county taxes, the latter providing for the maintenance of separate schools for white and colored. Connected with the work of the rural schools are the Boys' Corn Clubs (first organized in Alabama in 1910) for interesting boys in scientific agriculture. Besides the primary and intermediate schools, county high schools give preparation for the higher schools of the state. The latter include normal schools for whites at Florence, Jacksonville, Troy, and Livingston; and for negroes at Montgomery, Tuskegee, and Normal; the University of Alabama (co-educational) at Tuscaloosa; the Alabama Polytechnic Institute at Auburn, which is a state college for training in agriculture and the mechanic arts; the North East Alabama Agricultural and Industrial Institute (for whites), at Lineville; and the Alabama School of Trades and Industry for Boys and Young Men (white), at Ragland. Among the sectarian and other schools are: Southern University (Methodist Episcopal, South), at Greensboro; Howard College (Baptist), at East Lake (Birmingham); Spring Hill College (Roman Catholic), near Mobile; Talladega College (for negroes), at Talladega; and the Tuskegee Normal and Industrial Institute (for negroes), at Tuskegee.

Government. With the usual restrictions in regard to age and residence, the right to vote is limited to those males who can read and write any article of the Constitution of the United States; and who either have worked or been regularly engaged in some lawful employment, business or occupation, trade or calling for the greater part of the twelve months next preceding

the time they offer to register (unless prevented from labor or the ability to read and write by physical disability), or who own property assessed at \$300 upon which the taxes have been paid; but those who have served in the army or navy of the United States or of the Confederate States in time of war, their lawful descendants in every degree, and persons of good character who understand the duties and obligations of citizenship under a republican form of government, are relieved from the operation of this law provided they registered prior to December, 1902. No man may vote in any election who has not by the first of February next preceding that election paid all poll taxes due from him to the state. Any person guilty of criminal offence, including the selling, buying, or offering to buy or sell a vote, is debarred from voting. **EXECUTIVE.** The executive officials are a governor, lieutenant-governor, attorney-general, state auditor, secretary of state, state treasurer, superintendent of education, and commissioner of agriculture and industries, all of whom serve for terms of four years. None of these officers is eligible for reelection, and the governor is not eligible to election or appointment to any office in the state or to the Senate of the United States, during his term or within one year after the expiration thereof. The lieutenant-governor is *ex-officio* president of the Senate, and succeeds to the office of governor in case of vacancy. The attorney-general, secretary of state, and state auditor constitute a board of pardons, who hear petitions for pardons, commutation, or parole in cases of felony, and who advise the governor thereon; but the decision of the governor does not need to conform to that of the board. The governor may veto any bill, or any item of an appropriation bill, but a majority vote of each house may override that veto. A bill becomes a law if the governor fails to pass upon it

within one week after it has been submitted to him. **LEGISLATIVE.** The legislative body consists of a Senate and a House of Representatives, the maximum limit of membership being 35 and 107 respectively. The number of senators must not be more than one-third nor less than one-fourth that of the representatives. Senatorial districts are composed of contiguous, undivided counties. The legislature meets quadrennially at Montgomery, the sessions being limited to 50 days. **JUDICIARY.** The judiciary branch of the government consists of a supreme court, circuit courts, chancery courts, courts of probate, and such courts of law and equity inferior to the supreme court as the legislature may from time to time establish. The circuit court, or a court having the jurisdiction of a circuit court, is held in each county of the state at least twice every year. The state is divided into districts, in each of which the chancellor holds court at least twice each year. Courts of probate exist in each county. Judges of the supreme court, circuit courts, chancery and probate courts are elected for a term of six years. For each judicial circuit a solicitor (prosecutor) is elected for a term of four years. **LOCAL GOVERNMENT.** Each precinct has two justices of the peace and one constable, excepting precincts lying within towns of over 1,500 inhabitants, in which precincts the legislature may establish inferior courts in lieu of justices of the peace. The legislature of 1911 created a state court of appeals, which has final jurisdiction in certain cases.

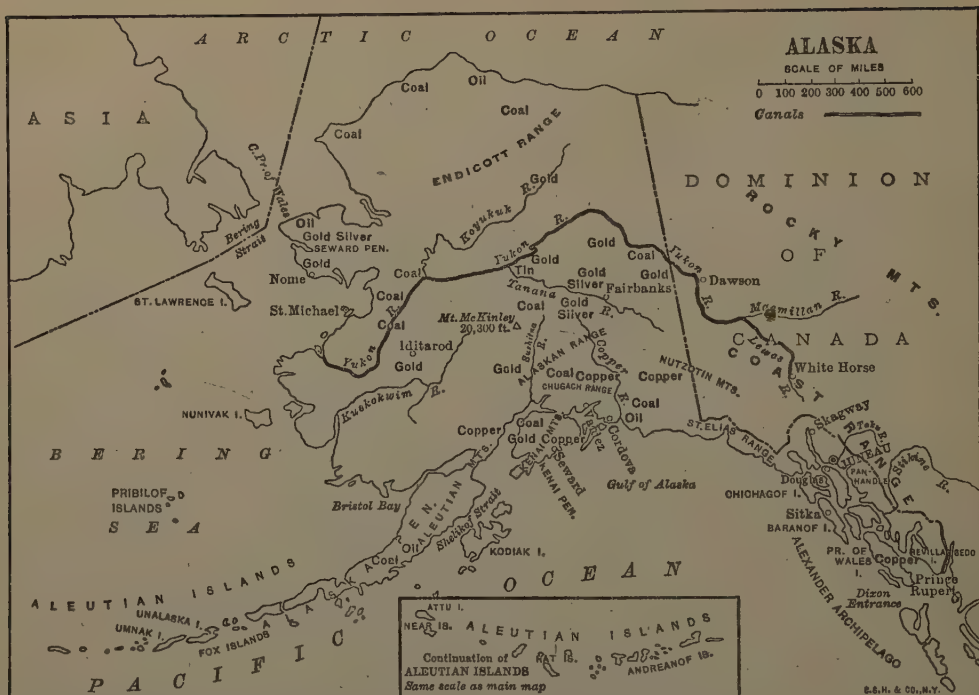
History. Alabama was settled by the French in 1702. The territory north of latitude 31° was ceded to Great Britain in 1763, and to the United States in 1783; the remaining territory was ceded by Spain to the United States in 1819, in which year it was admitted to the Union. It seceded January 11, 1861, and was readmitted in July, 1868.

ALASKA

ALASKA is a non-contiguous Territory of the United States, occupying the northwestern extremity of the North American continent, with neighboring islands. It is bounded on the N. by the Arctic Ocean and Bering Sea, on the E. by Canada, on the S. by the Pacific Ocean, and on the W. by Bering Sea and the Arctic Ocean. The territory is separated from Asia by Bering Strait, about 56 m. wide at its narrowest point. The international boundary between the United States and Russia follows about the 169th meridian to a point opposite Cape Prince of Wales; from there it bends to the west and southwest and passes finally midway between Copper Island, off Kamchatka, and Attu Island of the Aleutian chain. The territorial domain of Alaska therefore includes all islands in Bering Sea and those of the Aleutian chain lying east of that line. The mainland portion comprises the large continental mass lying west of 141° W. longitude and a narrow coastal strip, sometimes

called the Panhandle, which extends southeastward along the Pacific Ocean. The international boundary between Canada and this coastal strip follows a line drawn "east and north from Cape Muzon, in latitude 54° 40' N., to the head of Portland Canal, and thence follows the summit of the mountains situated parallel to the coast to the 141st meridian, but when such line runs more than ten marine leagues from the ocean, the limit is formed by a line parallel to the windings of the coast which must not exceed the distance of ten marine leagues therefrom." Alaska has an area of 590,884 sq. miles.

Coast. According to the United States Coast Survey, the general ocean coast line is about 4,750 m. long, and including the islands, bays, inlets, and rivers to the head of tide water, is about 26,000 m. in length. The northern and western coasts are regular in outline. The Arctic is bordered by a broad coastal plain, and on the west are many long straight beaches.



The southern coast is very irregular, is precipitous, and has few stretches of beach or plain. Towards the west its elevation gradually decreases. Jutting out from the mainland are Kenai Peninsula on the south, Alaska Peninsula on the southwest, and the rugged Seward Peninsula, which terminates in Cape Prince of Wales, on the west.

Islands. The Alexander Archipelago is an assemblage of over 1,100 islands, extending along the coast of the Panhandle region from Dixon Entrance, $54^{\circ} 40' N.$, to Cross Sound, $58^{\circ} 25' N.$ These islands are remnants of a submerged mountain system. They rise from 3000 to 4000 ft. above the sea, with bald, sheer sides, and their tops are heavily forested. The interinsular channels of this archipelago are carried up into the shore of the Panhandle region as fjords, heading in rivers or glaciers. The principal islands of the Archipelago, from north to southeast, are Chichagof, Baranof, Admiralty, Kupreanof, Kuiu, Prince of Wales (the largest Alaskan island, about 140 m. long and 40 m. wide), Etolin, and Revillagigedo. Southwest of the Kenai Peninsula are the Kodiak (Kodiak) Islands, separated from Alaska Peninsula by Shelikof Strait. The Aleutian chain of islands consists of about one hundred and fifty small islands in the North Pacific Ocean, the most westerly island of the chain being about 1200 m. westward from the mainland. The archipelago comprises four groups, the Fox, Andreanof, Rat, and Near Islands, the largest of the chain being

Unalaska and Unimak. The majority of the islands are of volcanic origin, and there are still many active volcanoes among the cones on the north side of the chain. The coasts are rocky and the approaches very dangerous. The general elevation decreases from east to west, the chain being in reality a continuation of the Aleutian Mountains on the mainland of Alaska. The islands in Bering Sea include the Pribilof group, Nunivac Island, St. Lawrence Island, and a number of small islands.

Relief. The mainland of Alaska comprises: (1) the large continental mass containing five-sixths of its area, and consisting of a vast expanse of moor, or tundra, broken here and there by mountain ranges and varied by countless lakes, water courses, and swamps; (2) the southeastern projection known as the Panhandle, a region abounding in sublime and picturesque scenery, with evidences of glacial action on every hand. The glaciers of this region are remarkable both for their number and their size. They lie mainly between latitudes 56° and $61^{\circ} N.$, in a belt 1,000 m. long. Here are thousands of Alpine glaciers from one to fifteen miles in length. "In a broad way, the main features of Alaskan topography correspond with those of the western states. There is a Pacific Mountain System, a Central Plateau Region, a Rocky Mountain System, and a Great Plains Region. These four divisions are well marked, and show the close topographic relation of this area to the

southern part of the continent." The Pacific Mountain System includes four ranges: the Coast Range of the Panhandle; the St. Elias Range, including the mountains between Cross Sound and Mt. St. Elias, as well as the Chugach, Kenai, Wrangell or Skolai, and Nutzotin Mountains. The highest peaks in the St. Elias Range are Mt. Wrangell (17,500 ft.), an active volcano; Mt. St. Elias (18,024 ft.); and in Canadian territory Mt. Logan (19,539 ft.). The Pacific Mountain System includes also the Aleutian Range of the peninsula and the Alaskan Range a little farther inland. In the Alaskan Range are many snowy summits, among them Mt. McKinley (20,300 ft.), the loftiest peak in North America. In this range also are more than a dozen live volcanoes. The Rocky Mountain System extends from the Yukon Territory of Canada into northeastern Alaska, the ranges of which it is composed forming a broad belt running nearly east and west. Between the Pacific Mountain and the Rocky Mountain Systems lies the Great Central Plateau Region. This is a region of flat-topped ridges, rounded hills, level stretches, and occasional areas of rugged mountains. In height, it varies from about 5,000 ft. close to the bases of the mountain systems to 2,500 ft. or less in the vicinity of the main streams. Between the Rocky Mountains and the Arctic Ocean is the Arctic Slope Region, which corresponds to the Great Plains Region of the United States. Very little is known of this part of Alaska.

Drainage. The Stikine, Taku, and Alsek Rivers of the Panhandle traverse the mountain ridges in deep-cut canyons. The Yukon River, one of the great drainage systems of the world, has a length of more than 2,000 m. and bisects the country from east to west. Its two main affluents in Alaska are the Tanana, for the most part unnavigable, and the Koyukuk, navigable for more than 450 m. by river steamers. The Yukon is navigable from May to September, and steamers ply on several of its larger tributaries, making the aggregate navigable waters about 3,500 m., three-fourths of which are in Alaska. The Kuskokwim, the second river of the Territory in size, is navigable by steamers for 600 miles. The Copper and the Susitna are the principal southward flowing streams; both of these rivers have their sources in lofty mountain masses, are swift and powerful streams, and are unnavigable. Most of the rivers of Alaska and their main tributaries run through deep picturesque canyons, and in their principal courses receive many glacial and torrential affluents.

Climate. A careful study of isothermal lines shows that much of southeastern Alaska has a temperate and equable climate, while much of the continental mass to the northward has a gentler climate than that of Stockholm or Petrograd. The climate at tide level and among the islands is singularly mild for the latitude, but in almost any season rains prevail. On the upper Yukon the summer heat is often intense, the

mercury frequently registering 90°-95° in the shade. At Sitka the mean annual temperature is 45°, and the yearly rainfall upward of 80 inches. The winters of the interior are very severe, the temperature often dropping to -60° and -70°F.

Agriculture. The United States Government has demonstrated that the soil of Alaska is capable of agricultural development, and that it will produce in abundance all that can be raised in the Scandinavian countries—the hardy cereals, vegetables, and berries, as well as live stock. It is now believed that Alaska can be made self-sustaining agriculturally, notwithstanding the fact that the short summers are a great hindrance.

Forests. The timber resources of Alaska are enormous, and are practically untouched. The forests of the southeast and south include the balsam-fir and the red cedar; more widely distributed is the yellow or Alaska cedar, a very hard and durable wood. The most abundant trees are the coast and alpine hemlocks and the Sitka spruce, the latter being the characteristic and universal tree of the territory. Timber is fairly abundant along the entire courses of the Yukon and its great tributaries. The woods consist almost entirely of spruce. Toward the Arctic Circle, timber becomes sparse, low, gnarled, and distorted. The national forests in Alaska, on January 1, 1915, had an area of 26,631,376 acres.

Fisheries. The fishery industries of Alaska are second in importance only to the mineral industries. Herring, cod, and salmon are caught in enormous quantities and canned or dried for shipment to the markets of the world. On the Karluk River, Kodiak (Kodiak) Island, is the greatest salmon fishery in the world. The fur-seal industry, at one time nearly destroyed, is reviving to some extent under the protection now afforded by the United States government. The walrus, sea otter, and other valuable fur animals are near extermination.

Minerals. The mineral wealth of Alaska is great and varied, and mining interests have occupied first place in the industrial life of the territory since 1880. Gold districts are scattered over the whole interior of Alaska; the quartz mines near Juneau are among the greatest stamp mills of the world. From 1880, when gold first began to be mined in Alaska, until 1914, the gold product of the territory amounted to \$244,292,540. There are almost unlimited quantities of a high grade of lignite coal in the interior of Alaska, which can be converted into electricity for use in the mines and widely distributed for lighting, heat, and power. Toward the southern coast of the peninsula are large fields of a high grade bituminous coal and some anthracite. Alaska has valuable tin, copper, and lead deposits, and petroleum, gypsum, and marble are found.

Education. The Territory is well supplied with schools, both for the native and white population. A number of Alaskan children (in-

cluding Thlinget and Aleuts) are sent to the United States Training School, at Carlisle, Pa. The United States Government is fully alive to the educational needs of the territory, and makes liberal appropriations for schools.

Government. By the act of Congress, approved August 24, 1912, Alaska became a Territory with a legislative assembly comprising a Senate and a House of Representatives. Congress reserved to itself the right to legislate on certain subjects so that the Territory is now governed conjointly by Congress at Washington, and by its local legislative assembly. Regular sessions are held biennially at Juneau, the session being limited to sixty days. The governor is appointed by the President for a term of four years, and is assisted by a secretary, a surveyor-general, and other officials. For the

administration of justice, the Territory is constituted as a judicial district with four subdivisions and four courts.

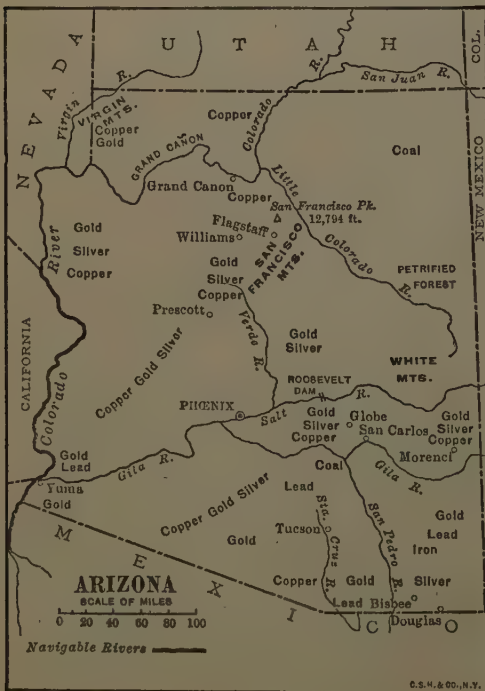
History. Alaska, formerly called Russian-America, was first visited by Vitus Bering in 1742. In 1799, the whole country passed under the control of the Russian-American Company. In 1867, the United States purchased the entire territory from Russia for \$7,200,000 in gold. When Mr. Seward, our Secretary of State, concluded the negotiations for the purchase of Alaska, there were many critics who felt that the country was paying a great price for comparatively valueless territory. It is interesting in this connection to note that as a return for the \$7,200,000 purchase money the United States has had added to its wealth nearly \$600,000,000.

ARIZONA

ARIZONA, one of the Mountain States of the Union, lies between latitudes $31^{\circ} 20'$ and $37^{\circ} N.$, and longitudes 109° and $114^{\circ} 44' W.$ It is bounded on the N. by Nevada and Utah; on the E. by New Mexico; on the S. by Mexico; and on the W. by Mexico, California, and Nevada. Arizona has an extreme length from north to south of 390 m. and an extreme width from east to west of 335 miles. In area it ranks fifth among the states of the Union (having a

gross area of 113,956 sq. m., of which 116 sq. m. represent water surface).

Relief. Arizona has three distinctly marked physiographical divisions: (1), the plateau region, which occupies the northeastern third of the state; (2), the mountain region, a belt from 75 to 160 m. in breadth which, running from northwest to southeast, crosses the central part of the state; and (3), the desert plains region which lies southwest of the mountainous belt. The plateau region ranges in elevation from 4,000 to 8,000 ft. above sea level, with mountain masses which rise to altitudes of over 12,000 feet. The plateau presents great diversity of surface—wonderful river canyons, bold buttes, stretches of desert plain, lofty and picturesque mesas, forests, and now and then a miniature valley clothed in green. To the northwest the plateau is cut by the Grand Canyon of the Colorado, whose walls for 300 m. and more rise precipitously from 3,000 to 5,000 ft. above the bed of the river. Along both sides of the Colorado is the Painted Desert with the wonderfully vivid colorings of its clays, shales, and sandstones. Another natural curiosity of the plateau region is the Petrified Forest, which is reached from either Holbrook or Adamana. The forest, now a government reservation, and so secure from vandalism, covers an area of over 60 sq. miles. It contains hundreds of logs and blocks of agate, chaledony, jasper, and other deposits. Everywhere in the plateau region are the marks of wind and water erosion and of volcanic action. It is separated from the mountain belt by a transition slope or escarpment of varying depth. The San Francisco mountains (12,794 ft.), a volcanic group northwest of Flagstaff, are the loftiest elevations of the state. The mountain belt is occupied by many short ranges or spurs, trending parallel with the plateau escarpment, and there are also many isolated and detached groups. The third physiographic region of Arizona lies within the extremely arid south-



western portion of the United States. It consists of broad desert plains, interspersed with nearly parallel mountain ranges, lower and less compact than those of the mountain belt, but having the same general northwestern and southeastern trend. This portion of Arizona rises from an altitude of approximately 350 ft. above sea level along the lower course of the Colorado River, to a general elevation of about 2,000 ft. in the desert plains, with altitudes in excess of 4,000 ft. in the mountain ridges which cross those plains.

Drainage. The Colorado River enters Arizona from Utah and runs for about 300 m. through a deep chasm called the Grand Canyon of the Colorado. Below the canyon the river runs southward, forming the boundary between Arizona on the one side and Nevada, California and Mexico, on the other, and enters the Gulf of California. Steamboats can ascend it about 500 m., to the mouth of the Virgin River. The Colorado receives no important tributaries from the west; the larger ones from the east are the Gila, the Little Colorado or Chiquito, and the San Juan. The Gila River in Arizona runs generally westward through an arid region diversified by mountains and tablelands, and enters the Colorado River in Yuma County. Its largest affluents are the Rio Verde, the Santa Cruz, and the San Pedro.

Climate. In general, the climate of Arizona is characterized by a wonderfully clear atmosphere and low humidity. The temperature in the mountains of the plateau region ranges from that of the temperate zone to that of sub-arctic regions. South of the mountain belt it ranges from temperate heat in the foothills to semi-tropic heat in the southwest. The average annual temperature over the region north of 34° N. latitude is about 55° F.; that of the region south of the same parallel is about 68½° F. In the Gila valley the mean temperature for July is about 98° F. and records of 125° F. are not unusual. Intense heat prevails throughout July, August, and September. The mean annual humidity at Yuma is about 39, at Phoenix 36.7, at Tucson 37.8. During two-thirds of the year the climate of Arizona is delightful; the nights are cool, the mornings invigorating, and the days dry and bright. The mean annual rainfall varies from 2 to 10 in. in the western half of the state, and from 10 to 25 in. in the eastern half.

Agriculture. The soils are in general rich, but deficient in nitrogen, and to a lesser extent in humus. In limited areas there is an excess of white alkaline salts. The floors of the desert plains are made up of gravelly and sandy detritus washed down from the mountains, together with sandy loam, loam and adobe soils in the vicinity of the larger streams or in the centers of the basin-like plains. The plateau country is as varied in its soils as in its surface configuration. The acreage of improved land is constantly increasing and the same may be

said as to the number of farms in Arizona. The total farm acreage, however, has decreased, and of the entire land area less than 2 per cent is in farms, and the proportion in no county reaches 10 per cent. Irrigation is necessary to the growth of crops in the low valleys, but on the higher plains some crops are grown without it. The total acreage included in projects completed or under way is 218,600 acres. The Federal Reclamation projects include, among others, those of the Salt River and the Yuma project, the latter being partly in California. Dry-farm experiments are being carried on near Prescott and Snowflake and in Sulphur Springs Valley. The leading crops of Arizona in the order of their importance, as judged by value, are hay and forage, barley, wheat, corn, alfalfa seed, oats, and potatoes. Garden vegetables and orchard fruits, grapes, oranges, and other fruits are grown. Acclimatized Egyptian cotton is successfully grown at Yuma. The live stock raised on farms and ranches ranks in order of value as follows: cattle, horses, sheep, mules, and swine. Tunis sheep have been introduced, and ostrich farming is successfully carried on.

Forests. On the mountains, above an altitude of 7,000 ft. and below 11,500 ft., and on the plateau country, are large forest areas where the principal growths are oaks, cedars, yellow pine, juniper, fir, and spruce. The Coconino forest with an area of about 6,000 sq. m. is one of the largest unbroken pine forests in the United States. Cottonwood, sycamore, ash, willow, walnut, and cherry trees are found in the canyons. About 86 per cent of the wooded lands are government reservations, and steps have been taken to safeguard the forest areas in the southeastern part of the state, from which there are few permanent streams flowing to the arid valleys.

Minerals. The leading industry of Arizona is mining. The state ranks first among the copper-yielding states of the Union, and gold, silver, lead, and zinc are among the metals produced. The quarries yield granite, sandstone, limestone, and onyx marble. Low-grade coal deposits occur in the east-central part of the state and near the junction of the Gila and San Pedro Rivers. Tungsten, asbestos, and quick-silver are worked to a limited extent. Some fine specimens of chrysolite, turquoise, and garnet have been found.

Manufactures. By far the most important of the manufacturing industries is that of copper smelting and refining which forms about 82 per cent of the total manufacturing output of the state. Lumber and timber working, flour- and grist-milling, car construction and repairing, are other industries. The blankets of the Navajo and Moqui Indians, and the baskets of the Pima Indians are well known.

Education. The general conduct of public schools is under the supervision of a state board of education. A permanent school fund is derived from the sale of public lands, from es-

cheated estates, and from unclaimed shares and dividends of corporations incorporated in the state. The state gives aid to vocational education in high schools and in normal schools; it provides for free text books in public schools and for county scholarships in the state university. School attendance is compulsory for twelve weeks (six consecutive) annually for children from eight to fourteen years of age. Instruction is free for children from six to twenty-one years of age. The state maintains two public normal schools, at Tampa and Flagstaff. The State University of Arizona is at Tucson, as is also the State Agricultural School. There are a number of Indian schools, the largest of which are maintained by the national government.

Government. Arizona is governed under a constitution adopted in 1911 and its amendments. Suffrage is the right of both male and female citizens of the United States who have attained twenty-one years of age, and have been resident in the state for one year. Excluded from the privilege are persons under guardianship, the insane, and those convicted of treason or felony (unless restored to civil rights). **EXECUTIVE.** The executive department consists of a governor, secretary of state, auditor and treasurer, attorney-general, and superintendent of public instruction. There is no lieutenant-governor. All executive officials are elected for two years, and they must at the time of election, be at least twenty-five years of age, and must have been citizens of the United States for ten years and of Arizona for five years preceding the election. No person is eligible to succeed himself in the office of state treasurer for two years after the expiration of the term for which he shall have been elected. **LEGISLATIVE.** The legislature consists of a Senate and House of Representatives. All members of these bodies must be at least twenty-five years of age and residents of Arizona for three years, and of the county from which elected for one year next preceding election. The legislature meets biennially (odd number years) at Phoenix,

its sessions being limited to 60 days. **JUDICIARY.** Judicial power is vested in a supreme court, superior courts, justices of the peace courts, and such special courts inferior to the superior court as may be provided by law. The supreme court consists of three judges, elected by the people for a term of six years; the one receiving the highest number of votes is chief justice.

LOCAL GOVERNMENT. Any city with a population of over 3,500 has the power to frame a charter for its own government. Municipal governments are forbidden to grant, extend, or renew a franchise without the approval of a majority of the qualified electors residing within their corporate limits, who shall vote thereon at a general or special election; and no franchise must be granted, extended, or renewed for a longer time than twenty-five years.

History. Pueblo ruins and aboriginal remains are found in the river basins of Arizona, notably in those of the Colorado, Little Colorado, and Gila. Arizona was explored by Spaniards from Mexico in the 16th Century. Jesuit and Franciscan missionaries labored among the Indians from the days of the early explorers until about 1820, when they finally abandoned the country because of Indian wars, and there was little attempt on the part of the Spaniards to settle the country for the same reason. American traders and explorers began to visit Arizona about 1820. As a result of the Mexican War, New Mexico, which then included all of Arizona north of the Gila, was ceded to the United States. The strip of territory known as the Gadsden Purchase was added to New Mexico in 1854. The progress of American settlement was slow and the removal of troops during the Civil War led to the outbreak of Indian hostilities and prolonged wars. In 1861 Arizona was occupied by a Texan force and joined the Confederacy. In 1862 the Texans were driven out. In 1863 Congress organized Arizona as a territory, with the meridian of 109° W. longitude as its eastern boundary. It was admitted as a sovereign state on February 14, 1912.

ARKANSAS

ARKANSAS, a West South-Central State of the Union, lies between latitudes 33° and 36° 30' N., and longitudes 89° 40' and 94° 40' W. It is bounded on the N. by Missouri; on the E. by Tennessee and Mississippi, from which states it is separated by the Mississippi River; on the S. by Louisiana; and on the W. by Texas and Oklahoma. In gross area Arkansas ranks twenty-sixth among the states of the Union (53,335 sq. m., of which 810 sq. m. are water surface).

Relief. Arkansas has a diversified surface which slopes upward from an elevation of less than 200 ft. in the southeast to heights of 2,000 ft. and more in the northwest. A line drawn through Little Rock from the northeast to the southwest corner of the state would divide it about equally into a southeast lowland division

and a northwest highland division. The Arkansas River, flowing across the state in a northwest-southeast direction, divides the highland and lowland divisions of the state each into two sections. Generally speaking, the eastern half of the state is a region of lowland prairies and hills; it is a part of the Gulf or Coastal Plain Province of the United States. The Mississippi and its principal tributaries are bordered by broad alluvial bottoms of low elevation and nearly level surface, above which rises the more rolling and elevated part of the Coastal Plain. In the highland division south of the Arkansas, are the Ouachita Mountains, which enter the state from Oklahoma and extend nearly to Little Rock. These run in long low ridges having an east and west trend, with wide flat valleys

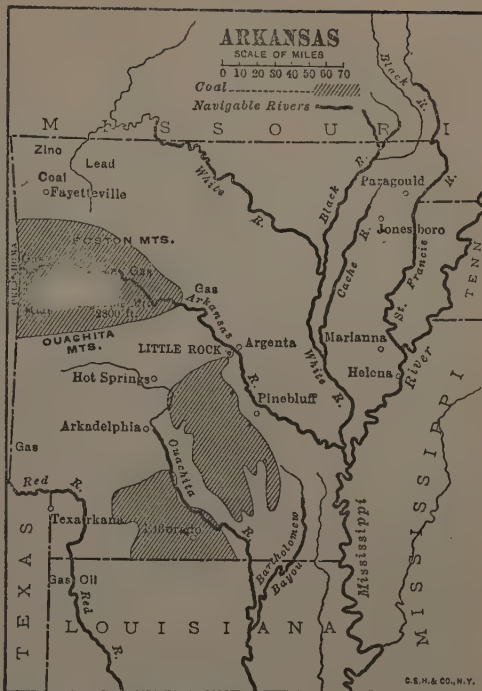
intervening. They rise from elevations of 500-700 ft. at their eastern end to nearly 2,900 ft. above the sea near the western boundary of the state. Magazine Mountain in Logan county (2,833 ft.) is the highest point between the Alleghanies and the Rockies. North of the Arkansas are the Boston Mountains, continuations of the Ozark belt of Missouri and structurally distinct from the Ouachita Mountains. They lie in short high ranges with fertile intervening valleys and attain elevations of 2,250 ft. On the north these mountains fall by a bold escarpment to a somewhat lower region in the extreme northwest. The scenery of the Boston and Ouachita Mountain Ranges is remarkably picturesque.

Drainage. Arkansas lies wholly in the drainage basin of the lower Mississippi, and is covered by a wonderful network of rivers. It is bisected from west to east by the Arkansas, along whose valley lie the oldest and most important settlements of the state. The Red, the Ouachita, the White, and the St. Francis Rivers are among the other large streams which, with numerous smaller ones, make up the drainage system. There are several swampy areas and bayous in the eastern part.

Climate. The climate of the greater part of the state is pleasant and salubrious. The marshy and flat alluvial sections are hot and trying to those who are not acclimated. The mean temperatures are normally about 41°, 61°, 79°, and 62° F. for winter, spring, summer and autumn, respectively. The mean annual temperature for the entire state ranges from 59° to 63° F. The normal annual rainfall ranges from 35 to 65 in., according to locality, and is sufficient for growing all crops except rice, for the cultivation of which irrigation is necessary. There is little snow and severe winter cold is unknown.

Agriculture. The soils of the alluvial bottoms are chiefly heavy silty loams and clays of wonderful richness. Some sandy loams exist along the front lands and bayous. In the southern portions of the state the soils are sandy and sandy loam. Topography, soils, and climate are the factors which make Arkansas an agricultural state of constantly increasing importance. The leading crops (ranked in the order of their importance as judged by value) are cotton, corn, hay and forage, oats, potatoes, sweet potatoes and yams, rough rice, and wheat. In acreage the combined cereals exceed cotton, while their value is only about three-fifths as great. Corn represents nearly 90 per cent of the total acreage and value of the cereals. The live-stock industries are of great importance.

Forests. Large parts of the state are finely timbered with valuable trees; pines and oaks of several varieties, hickory, ash, elm, sycamore, poplar, red ash, beech, walnut, pecan, and locust trees are among the 129 species found in Arkansas. The hard wood forests are hardly surpassed in the variety and value of their woods.



There are two Federal forest reserves containing about 5,000 sq. miles.

Minerals. The mineral wealth of Arkansas is great and varied, and is only partially developed. Coal, both semi-anthracite and bituminous, is extensively worked in counties along both sides of the Arkansas River, and is the most valuable mineral of the state. Zinc and lead are found in the Ozark region; iron, manganese, and copper are known to exist at various points; in Sebastian and Scott counties there is a little natural gas. The state is the foremost producer in the country of *beauxite*, and of oilstones (*novaculites*), which are among the best whetstones in the world. Grindstones, marble, millstone, slate, granite, kaolin, phosphate rock, and diamonds are among the mineral products. Mineral and thermal springs abound; the famous Hot Springs in Garland county, with a temperature of 158°, are renowned for their efficacy in a wide range of diseases.

Manufactures. Although Arkansas is comparatively unimportant as a manufacturing state, its manufactures have shown marked increase in recent years. Only 2.9 per cent of the population are engaged in manufacturing industries, which include among others lumber and timber products, cottonseed-oil and cake, flour-mill and grist-mill products, cars and general shop construction, and printing and publishing.

Education. A compulsory education law requires attendance at school for one-half of

the school year of children between eight and sixteen (unless the family is destitute), and of all children between sixteen and twenty if they are not regularly employed, but this applies to only half the counties of the state. The state has a complete public school system, under which separate schools are provided for white and black children. The schools are administered by a superintendent of public instruction and a state board of education. Four district agricultural schools, at Jonesboro, Russellville, Magnolia, and Monticello, were opened in 1912. At the head of the public school system is the University of Arkansas at Fayetteville. A normal school at Pine Bluff provides for colored students, who enjoy the same opportunities for work and are granted the same degrees as students at Fayetteville. Among the large denominational schools of the state are: Philander Smith College (Methodist Episcopal), at Little Rock; Ouachita College (Baptist), at Arkadelphia; Hendrix College (Methodist Episcopal, South), at Conway; and Arkansas College (Presbyterian), at Batesville.

Government. Arkansas is governed under a constitution adopted in 1874 and its subsequent amendments. The qualifications for suffrage include one year's residence in the state, six months in the county, and one month in the voting district next preceding election. Idiots, insane persons, convicts, Indians not taxed, minors, and women are disqualified. Aliens who have declared their intention to become citizens of the United States vote on the same terms as citizens of the United States. The constitution prescribes that no law shall be enacted whereby the right to vote at any election shall be made to depend upon any previous registration of the electors named. "An amendment of 1893 requires the exhibition of a poll-tax receipt by every voter (except those who make satisfactory proof that they have attained the age of twenty-one years since the time of assessing taxes next preceding the election)." **EXECUTIVE.** The chief executive officer of the state, the governor, is elected for two years. He has the power to pardon criminals, and to veto acts of the legis-

lature. There is no lieutenant-governor. **LEGISLATIVE.** The legislative branch of the government consists of a Senate and a House of Representatives. It meets biennially (odd number years), at Little Rock. The sessions are limited to sixty days, unless extended by a two-thirds vote of each house. Special sessions may be called by the governor. Senators and representatives must be citizens, the former at least twenty-five years of age and the latter at least twenty-one, and both must have resided in the state for two years and in the county or district for one year preceding election. Senators hold office for four years, one-half the number retiring every two years; representatives are elected for two years. A majority of the members elected to each of the two houses suffices to propose a constitutional amendment, which the people may then accept by a mere majority of all votes cast at an election for the legislature, but no more than three amendments can be acted upon at the same time. The legislature can override the veto of the governor by a majority in each house. **JUDICIARY.** The state judiciary consists of a supreme court and circuit courts. The five judges of the supreme court are elected for a term of eight years, the judges of the circuit courts are elected for four years. **LOCAL GOVERNMENT.** The unit of local government is the county, the county officers being county judge, district-attorney, sheriff, coroner, clerk of court, county assessor, county treasurer and county surveyor, and superintendent of schools. Municipal corporations are provided for under a general state law.

History. The first settlement of Europeans in what is now Arkansas was made by the French (1686) at Arkansas Post, important as a trading post in the earlier days of the American occupation, and the first territorial capital, 1819-'20. In 1720 a grant on the Arkansas was made to John Law; in 1762 the territory passed to Spain; in 1780 it reverted to France, and formed a part of the French colony of Louisiana which was purchased by the United States in 1803. It was organized as a territory in 1819, became a state in 1836, and seceded in 1861.

CALIFORNIA

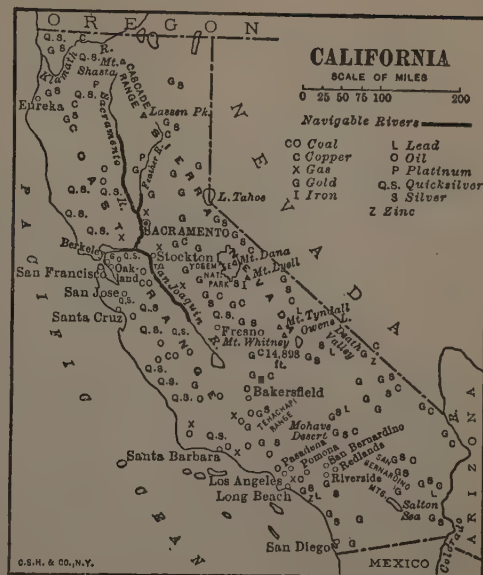
CALIFORNIA, one of the Pacific Coast States of the Union, lies between latitudes 32° 28' and 42° N., and longitudes 114° 10' and 124° W. It is bounded on the N. by Oregon; on the E. by Nevada and Arizona; on the S. by Lower California; and on the W. by the Pacific Ocean. It ranks second in size among the states, with a gross area of 158,297 sq. m., of which 2,645 sq. m. represent water surface.

Coast. Notwithstanding the bold and rugged coast-line (more than 1,000 m. in length) with which California faces the Pacific, she possesses comparatively few harbors, but among the limited number is one of the best in the world, San Francisco Bay. This great natural harbor,

50 m. long, 3 to 12 m. wide, with an area of 420 sq. m., is situated nearly midway between the northern and southern boundaries of the state. It is deep and safe as well as commodious, and opens out to the Pacific through the "Golden Gate," a channel three miles in length, a mile wide at its narrowest point, with a maximum depth of 360 feet. The northern part of this magnificent landlocked harbor is called San Pablo Bay, which communicates through the Straits of Carquinez with Suisun Bay, through which passes the drainage of the Great Valley on its way to the sea. Ice and snow are practically unknown, and navigation, in that respect, is unhampered. San Diego Bay, far

to the south, is another beautiful natural harbor through which is carried on an important foreign as well as domestic commerce. There are a number of small coastal islands, all included in the Santa Barbara group.

Relief. The main physiographic divisions of California may be summarized as follows: (1) two great mountain systems extending throughout the greater part of the state, in a generally northwest-southeast direction, and enclosing the Great Valley of California; (2) the rough and mountainous northern section; (3) the diversified region south of the Tehachapi Mountains, known as Southern California; and (4) the arid portions of the state lying east and southeast of the main mountain ranges. The Coast Range comprises altitudes of from 2,000–8,000 ft. above the sea. It is a complex system, made up of many ranges with their outlying spurs and foothills, whose intervening lowlands are vales of beauty and fertility. Farther east run the majestic Sierra Nevada Mountains, consisting mainly of one chain with an occasional double line of summits. Precipitous on the east, they slope gradually to the Great Valley of California on the west; hence it is that the openings of the passes which cross them are at the base of the mountains on the east, while on the west they are high on their flanks, 7,000–11,000 ft. above the sea. In the Sierra Nevada Range are found twelve peaks each with an elevation of above 14,000 ft., among the number being Mount Whitney (14,998 ft.), the highest summit of the national domain outside of Alaska. Mt. Lassen, or Lassen's Peak (10,437 ft.), in the Sierra Nevada Range, became violently active in the summer of 1914, and California now boasts, among her many unique features, the only active volcano within the continental area of the United States. The range is cut in many places, particularly in its northern stretches, by precipitous canyons and gorges, and numerous wonderful glacial valleys are ensconced amid its lofty peaks. Among the latter, the Yosemite is the most famous, surpassing all the others in the number and height of its vertical falls and in the massive grandeur of its rocks. It lies on the western slope of the Sierras, about 150 m. southeast of San Francisco, and is a part of Yosemite National Park. It is about 7 m. long and from $\frac{1}{2}$ to over 1 m. broad, its level and park-like floor being shut in by sheer granite walls 3,000–6,000 ft. high. Among the best known of the other valleys, which are visited every summer by tourists, hunters, and scientists, are the Hetch Hetchy Valley (a wonderful counterpart of Yosemite) in the Tuolumne Canyon; the Tehipitee Valley, in the Middle Fork Canyon of King's River; and the King's River Yosemite, in the South Fork Canyon. All these valleys are similar in their trends, forms, sculpture, and vegetation. North of 40° the Coast and Sierra Nevada Ranges unite and are continued northward in the Cascade Range, which runs through Oregon and Washington into British



Columbia. Throughout the state, and especially in its northern half, are found traces of volcanic action, and in the northern mountains are numerous craters and ash cones, the most remarkable being Mount Shasta, which rises over 10,000 ft. above the surrounding country and over 14,300 ft. above sea-level. The northern part of the state is a rough country whose western half is heavily timbered and extremely wet, while the eastern half consists of barren volcanic plains lying between low but steep mountain ranges. Towards its southern extremity, between 35° and 36° N. latitude, the Sierra Nevada Range is joined to the Coast Range by a transverse range (the Tehachapi Mountains), which to some extent separates Southern California from the rest of the state. The main mountain ranges above described form the setting, or rim, of the Great Valley of California (more than 400 m. in length, and from 40–60 m. in breadth), imperial in extent and renowned for the beauty of its scenery, the fertility of its soils, and the charm and salubrity of its climate. To the east of San Francisco Bay occurs the only considerable break in the mountain walls which guard this favored region, and through this depression the entire drainage of that part of the state finds its way to the ocean. Southern California is a region of coastal plain, of mountain ranges, and of desert plains beyond the mountains. The coastal plains are garden spots where grow the orange, the lemon, and countless other fruits; where wealth abounds; and where life is made easy by a mild and equable climate. The southern mountain ranges, having the same northwest-southeast trend as the Coast Range, separate the fertile coast lands from the arid

lands to the eastward. They have a general elevation of from 5,000-7,000 ft., with a number of peaks rising much higher (San Bernardino, 11,600 ft.; San Jacinto, nearly 11,000 ft.; and San Antonio, over 10,000 ft.). The passes crossing these southern ranges are comparatively low—about 2,500-2,800 ft.—and over these the railways cross to the coast. The barren lands of California lie east and south of the juncture of the Sierra and Coast ranges. This section, having an area of nearly 50,000 sq. m., is largely a desert. The Mohave Desert, including parts of Kern, Los Angeles, San Bernardino, San Diego, Imperial, and Riverside Counties, belongs to the "Great Basin." A narrow strip along the lower Colorado River is in the "Open Basin" region, and here there is no drainage to the sea, save in small areas in which intermittent streams reach the Colorado River. About the Salton Sea the country is depressed from 250-280 ft. below the level of the sea. Death Valley, to the east of the Sierra, 50 m. long, and from 5-10 m. wide at the base of the encircling mountains, is 276 ft. below sea level.

Drainage. The inland waters of California ultimately drain, through devious routes, to the Pacific Ocean. The drainage of the Great Valley is brought from the north by the Sacramento, and from the south by the San Joaquin, which great rivers unite near the head of Suisun Bay. The Sacramento is the largest river of the state, its head stream being the Pitt River which drains Goose Lake. The San Joaquin rises in the Sierra Nevada, near the northeastern extremity of Fresno county, follows a very crooked course, first southwestward and then north-northwestward through the valley, till it joins the Sacramento. Its chief affluents are the Fresno, Merced, Tuolumne, and Stanislaus Rivers. The Klamath River, draining the northwestern corner of the state, comes from Oregon through Klamath Lake, and has a course of about 275 m. before it enters the sea. Most of the rivers of the Pacific slope are short and have precipitous courses. The rivers of the arid region of California are intermittent streams (dry during part of the year) whose waters never reach the sea but are either lost by evaporation in the desert, or disappear beneath the surface. Thousands of glacial lakes and ponds, some fresh, others alkaline, are found among the Sierras. Of these lakes the most beautiful of all is Lake Tahoe, lying over 6,200 ft. above the sea, and forming part of the boundary with Nevada. It is 22 m. long, 10 m. wide, and about 1,500 ft. deep; and is set amid mountains which rise 4,000-5,000 ft. above its surface. Owen's Lake, a few miles east of Mount Whitney, is about 18 m. long and 10 m. wide, and is set in a region of sublime mountain scenery. Owen's River enters it on the north, but it has no visible outlet. Clear Lake, in the Coast Range, is another picturesque sheet of water much frequented by tourists and sportsmen.

Climate. Distance from the Pacific, situa-

tion with reference to the mountain ranges, altitude, and regular diurnal and seasonal winds are the weather factors in this remarkable state, where there are in reality but two seasons—a wet one and a dry one. The wonderful variety and wonderful contrasts which are presented by the physiographical features of California are not more startling than are its variations of temperature and rainfall. Summer in California is the dry season, when everything becomes parched and dusty because of the scanty rainfall and the intense heat. The heat, however, except on the coast, is greatly ameliorated by the dryness of the air and the consequent rapidity of evaporation. The climate of the section west of the Coast Range, especially northward from San Francisco, is damp, foggy, and quite cool even in summer, and the nights are cold. Back of the Coast Range, in the Great Valley, the climate is delightful during the greater part of the year, and roses are there as plentiful at Easter as they are in June in New England. The Colorado Desert, like the lower Gila Valley of Arizona, is the hottest part of the United States, where the yearly extreme is frequently from 124° to 130° F. in the shade. In Death Valley the maximum temperature may for days in succession be as high as 120° F. The winter climate of the high mountains, especially in the north, is severe. About Lake Tahoe, at an elevation of 6,200 ft., temperatures of 25° to 30° below zero are not unusual. But in lower altitudes throughout the entire state the winters are remarkably mild. In the northern half of the Sierras and in the northwestern part of the state, the normal rainfall is from 60 to 75 in., and in exceptional seasons it is much greater. In all the rest of the state, save Inyo, Kern, and San Bernardino Counties, the rainfall is from 10 to 20 inches. The southeastern counties are the driest part of the United States, and there the normal annual precipitation is from 1.5 to 2.5 inches. California, like the rest of the Pacific Coast, is liable to earthquakes. They occur in all seasons, scores of slight tremors being recorded every year by the Weather Bureau.

Agriculture. The soils of the coastal plains, from San Francisco to San Diego, range from heavy clay-like adobe soils to sandy and gravelly loams. The soils of the Great Valley include the heavy clays and clay loams along the rivers, and the loams, adobes, sandy and gravelly soils of the foothills. The soils of that portion of the state east of the Sierra Nevadas in the Great Basin are gravelly and sandy and as yet undeveloped for agricultural purposes. In the extreme northern part of the state the region east of the Sierras has soils which are largely composed of lavas and volcanic ash from extinct volcanic craters. The soils of the arid southern part of the state are clays, sands, and sandy loams. California has the greatest area of irrigated land of any state in the Union, the water used being obtained, either from lakes and

rivers (as is the case in the Great Valley), or from artesian wells (as in the southern part of the state). The sources of wealth in California, taken in historical sequence, have been of three classes: pastoral (hides, tallow, wool); mineral (gold, silver, petroleum, etc.); agricultural (wheat and other cereals, wine, deciduous orchard fruits, citrous fruits, tropical and semi-tropical fruits, nuts, olives, hops, etc.). Farms have grown smaller, irrigation has been greatly extended, and scientific cultivation established. The following items taken from reports of the United States Census Bureau give an idea of the changes as to farm acreage during the past sixty-five years. In 1850 the total farm area of the state, embracing 3,893,985 acres, was divided into 872 farms with an average size of 4,466 acres. Large farms of 50,000 acres were not unusual, but the small farm of 15 or 20 acres was unknown. In 1910, the total farm area was 27,981,444 acres; the number of farms had increased to 88,197, while the average size of farms had fallen to 316.7 acres. Thus it is shown that as the area of cultivated land has increased the average size of farms has decreased. Large farms of 1,000 or more acres are still to be found in the state but the small farm has come into its own. Stock ranches and allied industries, the chief sources of wealth in the days of the Mexican regime, were followed by the mining camps of early American rule when Gold was King. Then there came a time when the mining camps had to yield first place to the wheat-fields of the Great Valley. That was in the years 1880-1884. Since 1884 the production of wheat has steadily decreased, and other crops are now the ruling factors of agricultural industry. Irrigation, intensive cultivation, growing knowledge of the state's wonderful soils and climates, have brought about the change in products and explain the establishment of the small farm. The wheat-fields and stock-ranches have not gone—they are still important—but horticulture is now the leading agricultural industry, and in this field California has no rival among the other states of the Union. Charles Dudley Warner called California "Our Italy," and to-day, not only the fruits and vines of Italy, but those of many other lands are found to flourish in this favored commonwealth. The orchards of the north yield apples, peaches, pears, apricots, cherries, plums, and almonds; the Great Valley produces not only grapes, prunes, and olives, but a great variety of other fruits and of nuts; Southern California excels in oranges, lemons, and other tropical and semi-tropical fruits. The state produces more than a fifth of the fruit grown in the United States, and its supremacy is established in the growth of oranges, lemons, citrons, figs, prunes, plums, olives, grapes, raisins, nectarines, pomegranates, almonds, and English walnuts.

Forests. The forests of California are, with those of Oregon and Washington, probably the finest in the world. The variety of trees is not

great, but some of the trees are peculiar to California. Coniferous forests make up nine-tenths of the wooded areas and include nearly fifty species, among which are the redwood and the sequoia, found only in this section of the United States. The redwood grows on the western slope of the Coast Range from southern Oregon nearly to San Francisco, with one grove, now a state reserve, farther south at Santa Cruz. The sequoia is found only in the Sierra Nevada, occurring in scattered groves among other species. Its habitat, in latitude 36°-39° N. is at an altitude of 5,000-8,000 feet. The government holds the groves near Visalia as a national park. The Calaveras Grove, near Stockton, is the one most accessible from San Francisco. A national forest reserve includes the big tree groves of Calaveras and Toulumne Counties, but nearly all of the merchantable timber is owned by private individuals. The elm, the hickory, the beech, the chestnut, and other trees both useful and ornamental have been introduced from the eastern states, and from other parts of the world. Oaks are abundant, especially in the Great Valley. There are still some 20,000,000 acres of commercial timber, or forest which may be cut for lumber. In addition to the commercial timber there are several million acres of woodland of non-commercial timber useful for fuel and domestic purposes and for protecting the watersheds. Large areas of the forests are now included in the national reserves and regular and scientific supervision and management are conducted by the federal forest service.

Minerals. More than forty minerals of commercial value are found in California, but the list of those which are worked to any great extent is comparatively small, including gold, silver, copper, lead, zinc, borax, quicksilver, coal, petroleum, clay, granite, limestone, and salt. Since 1848 the mines of California have produced more than \$1,500,000,000 worth of gold. The annual output is still nearly \$20,000,000, and shows a tendency to increase. Of other metals, copper is next in value to gold. The most valuable of the mineral products of California at the present time is petroleum. Its output is greater than that of any other state in the Union, and its effect upon the economic development bids fair to exceed that of any other one factor in the history of the state. Its use for power purposes is transforming the state from a community devoted almost exclusively to agriculture and mining to one where manufacturing may take the leading place in industrial life. At present its value in the industrial development of the coast and mountain states can hardly be overestimated.

Manufactures. California aspires to become a great manufacturing state and to relieve the manufacturing communities of the East and Middle West of their present markets west of the Rocky Mountains. Important factors in the realization of this desire will be the utilization of her oil products and the development of

long-distance electric-power transmission. At the present time the chief manufactured products of California (in the order of their value) are: lumber and timber, cement, canned and preserved goods (fruits, vegetables, and fish), refined oils, flour, and copper and tin wares.

Education. A compulsory education law of 1911 sets the age of school attendance from eight to fifteen years, but there are many exceptions. In November, 1912, the people approved an amendment to the constitution, giving free textbooks to pupils in both day and evening schools. California has a complete public school system which includes elementary, grade, and high schools; normal schools at Chico, Los Angeles, San Diego, San Francisco, San Jose, and Fresno; and polytechnic and other special schools. The laws provide that one high school in every first-class city shall teach French, Italian, Spanish, and German, and such a school is to be styled a cosmopolitan school. Provision is made for the education of prisoners confined within the prisons of the state, and several hundred students are enrolled in correspondence and other departments. At the head of the state's educational system is the University of California at Berkeley—one of the great universities of the world, comprising many colleges and the Lick Astronomical Department. Among the private institutions of the state are the Leland Stanford, Jr. University, at Palo Alto—one of the richest educational institutions in America; the University of Southern California at Los Angeles; and other non-sectarian and denominational schools.

Government. California is governed under a constitution which became operative in 1880, and its amendments. Every male or female citizen of the United States (native-born, or naturalized ninety days prior to election), who is able to read the constitution in English and write his name, and who has resided in the state for one year, the county for ninety days, and in the precinct for thirty days next preceding election, is entitled to the suffrage. Excluded from the suffrage are natives of China, idiots, insane persons, embezzlers of public moneys, and persons convicted of infamous crime. **EXECUTIVE.** The executive officers of the state are the governor, lieutenant-governor, secretary of state, treasurer, comptroller, adjutant-general, attorney-general, superintendent of education, commissioner of insurance, and commissioner of agriculture. The governor is chosen for a term of four years, and is assisted in conducting the affairs of the state by numerous state boards and commissions, of which the most important are the Board of Education, the Board of Regents of the University, the State Board of Prison Directors, the State Board of Equalization, the

Railroad Commission, the Bank Commission, the State Board of Health, the Insurance Commission, the State Engineering Department (formed in 1907), the State Board of Charities and Corrections, the State Board of Agriculture, the State Commission of Horticulture, the State Department of Forestry, and the Commission in Lunacy. **LEGISLATIVE.** The state legislature is composed of a Senate and an Assembly. It meets at Sacramento, biennially (odd number years) and no limit as to length of session is prescribed by law. The qualifications for eligibility to the legislature are citizenship of the state for three years and residence in the district for one year. Members of the Senate are elected for terms of four years, half the number retiring every two years; members of the Assembly are elected for two years. **JUDICIARY.** The judiciary includes a Supreme Court having seven judges, elected for terms of twelve years; three courts of appeal, having nine judges, elected for terms of twelve years; and fifty-eight superior courts with ninety-eight judges, elected for terms of six years. **LOCAL GOVERNMENT.** The only county officers to be elected by popular vote are the Board of Supervisors, auditor, district-attorney, and assessor. The sheriff, coroner, county clerk, county treasurer, county surveyor, and superintendent of schools are appointed by the Board of Supervisors. A law provides for the commission form of government for cities. Cities over 400,000 are in the first class, and between 250,000 and 400,000 in the first and one-half class; cities between 100,000 and 250,000 are in the second class; those between 23,000 and 100,000 are in the third class; those between 20,000 and 23,000 are in the fourth class; those between 6,000 and 20,000 are in the fifth class; and those under 6,000 are in the sixth class.

History. California was formerly a part of Mexico, and the Franciscan Fathers made several settlements here between 1769 and 1776. In 1846, during the war between the United States and Mexico, it was occupied by the former country, and annexed by it in 1848. The gold discoveries later in 1848 caused a rush of immigrants to the territory, which in 1850 was admitted to the Union. The prosperity of the state was greatly stimulated by the opening of the Union Pacific Railway in 1869. In April 1906, a disastrous earthquake and the resultant fires destroyed a great part of San Francisco and injured many other towns. Visitors to the Panama-Pacific Exposition, held in San Francisco in 1915, found a new and more beautiful city built upon the ruins of the old town, a monument to the loyalty, intelligence, and industry of her citizens.

COLORADO

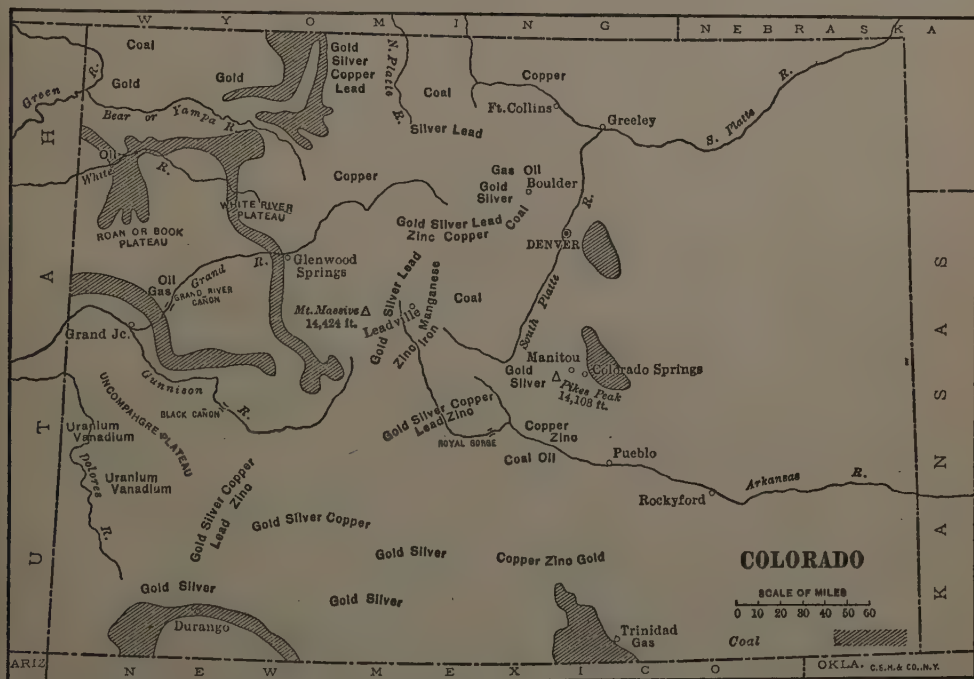
COLORADO, a Mountain State of the United States, lies between latitudes 37° and 41° N., and longitudes 102° and 109° W. It is bounded

on the N. by Wyoming and Nebraska; on the E. by Nebraska and Kansas; on the S. by Oklahoma and New Mexico; and on the W. by Utah.

Colorado has an extreme length from east to west of 390 m., and an extreme width from north to south of 270 miles. In gross area it ranks seventh among the states of the Union (103,948 sq. m., of which 290 sq. m. represent water surface).

Relief. The mean altitude of Colorado is higher than that of any other state in the Union, and fully two-thirds of its area ranges in elevation from 6,000 to 14,000 ft. above sea level. The surface presents two main physiographic divisions: (1) the Plains Region, and (2) the Mountain and Plateau Region. The Plains

The Garden of the Gods, at the foot of Pike's Peak and about 5 m. from Colorado Springs, is one of the natural wonders of the state. It is noted for its fantastic rock formations—pinacles, needles, and spires. The Front Range is but the eastern sentry line of the Rocky Mountain belt of Colorado. Far to the west, from the northern to the southern boundary line, rise other mountain ranges, each with its outlying spurs and dominating peaks, and each with a localized name. The Saguache or Sawatch Mountains, near the central part, are considered the most imposing of the many ranges of the



Region occupies the eastern third of the state and marks the western limit of the Great Plains Region of the United States. The surface rises from 3,500 to 4,000 ft. above sea level along the eastern boundary to about 6,000 ft. at the base of the first range of mountains. This part of Colorado is a region of rich and unbroken plains through which eastward flowing rivers have cut deep narrow valleys. In about 105° W. longitude the Plains Region is met by the most eastern of the Rocky Mountain ranges, which is generally known as the Front Range, though local names are given to several of its sections. This range, rising abruptly from the plains, runs almost due north and south, but is slightly deflected to the westward in the northern part of the state. Its highest summits are Pike's Peak (14,108 ft.), west of Colorado Springs, and Long's Peak (14,271 ft.), about 50 m. northwest of Denver.

Between the northern and southern extremities of this range are nine peaks of over 14,000 ft. elevation, among them being Elbert Peak (14,420 ft.) and Mountain Massive (14,424 ft.), the highest peak in the state. The Sangre de Cristo Range, farther south, one of the most beautiful chains in the entire Rocky Mountain system, contains Blanca Peak (14,390 ft.), Old Baldy (14,200 ft.), and many others of nearly as great elevation. Among the remarkable summits of Elk Range are White Rock Mountain (13,550 ft.), Snow Mass (13,970 ft., Hayden), and Castle Peak (14,250 ft.). Other noteworthy ranges are Medicine Bow and Park Ranges in the north; the Culebra Range of the extreme south; the White River Mountains in the west; and the San Juan and other ranges in the southwest. Altogether there are in Colorado nearly 200 summits exceeding 12,000 ft. in altitude, more than

one hundred above 13,000 ft., and thirty-eight above 14,000 feet. Much of the magnificent scenery of Colorado is due to glacial action, of which evidence is left in the glacial lakes, the valley moraines, the sharpened peaks and ridges, the countless cascades, and valley troughs found in nearly all of the ranges. More than a dozen of the passes through the mountain ranges of Colorado lie above 10,000 feet. Among the most famous are the Argentine (13,000 ft.) in the Front Range near Gray's Peak; the Rio Grande (12,400 ft.), east of Silverton; the Pearl Pass (12, 715 ft.), in the Elk Range between Gunnison and Pitkin counties; and Clear Creek Canyon, where the railway track coils six times about itself above Georgetown at an altitude of nearly 10,000 ft. above sea level. The central mountain chains enclose a series of remarkable valleys which are known as the "natural parks" of Colorado. Lying at great altitudes amidst magnificent mountain scenery, these valleys, which are park-like in their main characteristics, are bound to play an important part in the future industrial development of the state. They have fertile soils and forest areas, are dotted here and there with small lakes, and have a mild climate. The parks are generally small, but some are larger than entire states in other parts of the Union. The best known of these parks are, from north to south, North, Middle, South, and San Luis. The last named is the largest of the chain and extends across the southern boundary of the state into New Mexico. The western quarter of the state is a region of lofty plateaus, a continuation of the great plateaus of Utah. Parts of this lofty region are known as the Uncompahgre Plateau, the Roan or Book Plateau, and the White River Plateau.

Drainage. The state is drained westward and southward to the Gulf of California through the rivers tributary to the Colorado; southward to the Gulf of Mexico through the Rio Grande and its tributaries; and eastward through the rivers flowing to the Missouri and Mississippi. The main tributaries of the Colorado are the Green, the White, and the Grand Rivers. Among the rivers flowing east, are the South Platte and the Arkansas, both of which rise in South Park; and the North Platte, which has its origin in North Park. Among numerous other mountain streams, the systems of the Dolores, the White, and the Yampa, all in the west, are of primary interest. Many of the rivers traverse the mountains through canyons which furnish some of the most impressive scenery of the state, the most famous being the "Royal Gorge" or Canyon of the Arkansas, 8 m. above Canyon City, whose granite walls rise 2,600 ft. above the river; the Canyon of the Grand River; the Toltec Gorge, in New Mexico but close to the Colorado boundary; and the Black Canyon of the Gunnison and Cimarron.

Climate. The dry, pure air and regular climate of Colorado have made the state the refuge of invalids suffering from diseases of the respira-

tory system. Malarial diseases are almost unknown. Cold prevails during the winter months in the mountains, and hot weather in the daytime is common in summer. But the dry atmosphere makes the cold in winter and warm weather in summer time much easier to bear. Sunstroke is unknown. The mean annual temperature for the state is about 46° F. The southeastern portion is the warmest part of the state, while the north-central region is the coldest. The great elevation of the state gives it an ideal summer climate, and however hot the summer day the night is always cool. Very little snow falls in winter, except upon the mountains, and cattle feed upon the self-cured and unharvested grasses in the valleys and foothills throughout the cold season. The normal annual rainfall for the entire state is from 15 to 17 in., with local variations of 15 to 25 inches.

Agriculture. The soils of the Great Plains region are composed chiefly of the detritus of the mountain areas carried down and spread over the plains by long-continued stream action. The valleys are bordered by silty and sandy alluvial soils at the lower levels, and by sandy and gravelly loam bench lands at higher altitudes. The soils of the parks and smaller valleys are formed from alluvial or lacustrine deposits. Wherever water is available irrigation has been introduced, the largest irrigated area in the state being in the valleys of the South Platte and Arkansas Rivers, and extending from the mountains to the eastern boundary of the state. The total acreage included in irrigation projects, completed or under way, is 5,917,457 acres. About 20.4 per cent of the area of Colorado is included in farms, but only 6.5 per cent is classed as improved land. One of the striking characteristics of agricultural conditions in Colorado is the presence of great areas of semi-arid land which has thus far been utilized, if at all, for grazing purposes. Upon this land are many very large farms, or ranches, frequently exceeding 10,000 acres in extent. But, aside from the farms used for grazing purposes, the present tendency is to smaller farms and scientific cultivation. The leading crops of the state (in the order of their importance as judged by value) are: sugar-beets, hay and forage, wheat, oats, potatoes, corn and barley.

Forests. The forests of Colorado were depleted in early days by reckless consumption and by forest fires, but in recent years reforestation has been the rule under the federal forest reserve. The timber, which is nowhere large or dense, includes the yellow and lodge-pole pines, red fir, hemlock, cedar, Englemann spruce, the cottonwood and the aspen. The federal forest reserves include about 25,000 sq. m., and cover altitudes of 7,000 to 14,000 feet.

Minerals. Colorado first attracted settlers because of its mineral wealth. It has great mining and smelting industries, coal and the ores of the precious metals being extensively worked. It is one of the greatest gold and silver

producing areas in the United States. Teller County, with the Cripple Creek district, is the principal gold producing area, and Lake County (Leadville) the principal silver producing area. Besides these the state has valuable deposits of copper, zinc, lead, and petroleum. In Boulder and Fremont counties are natural gas wells. Other mineral products of commercial value are clay, stone, sand and gravel, tungsten, and sulphur. Minor mineral products are mica, fluor-spar, graphite, and grindstones. A few precious and semi-precious stones are found, and mineral springs are numerous, occurring in various parts of the state.

Manufactures. Much of the manufacturing activity of the state is dependent upon the development of its extensive mineral resources, and many manufacturing establishments owe their existence to the needs of the mining industry. Irrigation of the fertile valleys of the Platte and Arkansas Rivers and other streams has made the beet-sugar production of Colorado greater than that of any other state. The canning industry is also the outgrowth of irrigation. Coal and timber as manufacturing material are abundant, and generally accessible. The fact that Colorado is a natural grazing country accounts for the development of such industries as slaughtering and meat-packing, the manufacture of butter, cheese, and condensed milk, the rendering of grease and tallow, and wool scouring. The most important industries (arranged in the order of value of products) are: slaughtering and meat-packing, the manufacture of flour and grist-mill products, and of foundry and machine-shop products.

Education. The public schools of Colorado are under the general supervision of the superintendent of public instruction. Besides the public, elementary, and high schools, the state maintains the University of Colorado at Boulder, the School of Mines at Golden, the Agricultural College at Fort Collins, the State Teachers College at Greeley, and industrial schools for girls and boys near Morrison and Golden, respectively. All are supported by special taxes and appropriations—the agricultural college receiving also some aid from the Federal government. The United States maintains an Indian school at Grand Junction. Among the private institutions of the state are Colorado College (non-sectarian), at Colorado Springs, and the University of Denver (Methodist Episcopal), at Denver.

Government. Colorado is governed under its first constitution, adopted in 1876, and its amendments. The right to vote is given to all

citizens, male or female, native or naturalized, who are duly registered, and have lived in the state for one year, in the county for ninety days, in the town for thirty days, and in the precinct for ten days preceding an election. Excluded from the suffrage are persons confined in public prisons, those under guardianship, and insane persons. **EXECUTIVE.** The executive officers of the state are the governor, lieutenant-governor, secretary of state, treasurer, auditor, attorney-general, and superintendent of public instruction. The governor is elected for a term of two years; he may veto any separate item in an appropriation bill. The state treasurer and auditor may not hold office during two consecutive terms. **LEGISLATIVE.** The state legislature, or General Assembly, is composed of a Senate and House of Representatives. It meets at Denver, biennially (odd number years), and its sessions are limited to ninety days. Members of the Senate are elected for four years, one-half retiring every two years. Members of the House of Representatives are elected for two years. Eligible to either house are all citizens of the state, male or female, who are twenty-five years of age and have been resident in the district for which they seek election for twelve months preceding the election. **JUDICIARY.** The state judiciary comprises a supreme court, district courts, and county courts. The supreme court is composed of seven judges elected for six years; judges of the district courts are elected for six years. **LOCAL GOVERNMENT.** County government is of the commissioner type. Other county officials are county judge, district-attorney, sheriff, coroner, clerk, assessor, treasurer, surveyor, and superintendent of schools—all elected by the people.

History. Within Colorado there are pueblos and cave-dwellings which are survivals of the Indian period and culture of the Southwest. Coronado may have entered Colorado in 1540, and there are records of Spanish exploration in the south in the latter half of the 18th century. In 1806, it was explored for the United States government by Zebulon M. Pike, who discovered the famous peak that bears his name. From 1804 to 1854 the whole or parts of Colorado were included nominally under some half dozen territories carved successively out of the trans-Mississippi country. It was practically an unknown region when, in 1858, gold was discovered in the plains on the tributaries of the South Platte near Denver. During 1860, '61 and '62, it received a continuous stream of immigration. The territory was organized in 1861, and was admitted as a state in 1876.

CONNECTICUT

CONNECTICUT, one of the New England States and one of the original thirteen states of the Union, lies between latitudes of 40° 54' and 42° 3' N., and longitudes 71° 47' and 73° 43' W. It is bounded on the N. by Massachusetts; on

the E. by Rhode Island; on the S. by Long Island Sound; and on the W. by New York. Connecticut ranks forty-sixth in area (4,965 sq. m., of which 145 sq. m. is water surface) among the states of the union.

Coast. The shore line of Connecticut extends from the mouth of the Byram River, at the southwestern angle of the state, to the mouth of the Pawcatuck River, which for some distance separates Connecticut from Rhode Island. The coast has a number of bays which form good harbors, the principal ones being Bridgeport, New Haven, New London, and Stonington, all ports of entry, while Stamford is a sub-port of entry.

Relief. The greater part of the surface of Connecticut is that of a gently rolling upland, interrupted by numberless small deep valleys and divided near the middle by the lowland of

which, near the New York state line, attain mountainous altitudes. These hills are a continuation of the Berkshire and Taconic ranges of Massachusetts, and the highest altitudes are those of Bear Mountain (2,355 ft.), Gridley Mountain (2,200 ft.), Mount Riga (2,000 ft.), and Lion's Head (1,760 ft.), all in Salisbury; Mount Ball (1,760 ft.), in Norfolk; Canaan Mountain (1,680 ft.), in North Canaan; and Ivy Mountain (1,640 ft.), in Goshen.

Drainage. The drainage of the state is entirely into Long Island Sound, the chief streams being the Housatonic and its tributary, the Naugatuck, in the west; the Connecticut in the



the beautiful Connecticut valley. Both sections of the upland surface rise gradually from the shore of Long Island Sound on the south to a mean elevation of 1,000-1,200 ft. along the northern boundary. The Connecticut Valley rises from sea level in the south to a height of only about 100 ft. at the north. This lowland has a total area of some 600 sq. miles. The basin of the Connecticut is in general nearly level, although it is broken by mountainous ridges, such as West Rock Ridge near New Haven, and the Hanging Hills of Meriden, which constitute the southern extension of the Holyoke Range. These deeply notched ridges are finally merged into the upland heights directly to the west. The eastern highland portion of the state is less abruptly rugged than the western highland, for in the west are several isolated peaks

center; and the Thames, which is the outlet for three other rivers (the Yantic, the Shetucket, and the Quinebaug), in the east. As in Massachusetts, the Housatonic River has a most picturesque course through the state, and a few miles of tide water navigation near its mouth. Its main affluent, the Naugatuck, babbling through a narrow valley enclosed by low hills, is a charming little stream, although extensively utilized for power purposes. The Connecticut River has a fairly straight north and south course through the lowland belt until Middletown is reached, at which point it turns southeastward into one of the narrow valleys in the eastern highland section. The Connecticut is navigable as far as Hartford. The Thames is a tidal estuary which receives the waters of the Yantic, and the united waters of the Shetucket and Quine-

baug. It is navigable to Norwich. Small lakes are found in all parts of the state, many of them being set in the midst of picturesque hills and wooded country, and surrounded by summer homes, hotels, and camps.

Climate. The climate of Connecticut is subject to sudden changes of temperature, but the extremes of heat and cold are less than in the other New England States. The mean annual temperature is 49° F., the average winter temperature being 26°, and the average summer temperature 72° F. The southwest winds, which prevail in summer, temper the heat of the coast region. The warmest weather is experienced in the central parts of the state, where 100° F. has been recorded. The prevailing winter winds are from the northwest, and records of -10° or -15° are not unusual in the northwestern section of the state. The annual precipitation varies, from 43 to 50 inches.

Agriculture. Until the middle of the nineteenth century agriculture was the principal occupation of the people of Connecticut, whose thrift and industry overcame the disadvantages of soil and climate, and won for them an independent though frugal livelihood. Then the development of manufactures, the competition of the western states in farm products, and the change in population brought about by the growth of great cities, caused a steady decline in agriculture after 1850. Within the Connecticut basin, and in the smaller valleys are found the best agricultural lands of the state, where the sandy loams and loamy soils are favorable to tobacco growing, market-gardening, and fruit growing. The upland soils are principally used for grazing and the production of grass and corn. Extensive areas are too steep in slope or too rocky for any other occupation than that of forestry or pasturage. The growing horticultural interests of the state are located chiefly upon the deeper areas of the glacial loams in the highland portions.

Minerals. Connecticut has a variety of mineral products, including iron, copper, gold, silver, tungsten, and lead. In colonial times the production of iron was an important industry in the vicinity of Salisbury. The only mineral industries now of importance are those furnished by the quarries of granite near Long Island Sound, those of sandstone at Portland, and feldspar at Branchville and South Glastonbury. Limestone, beryl, clays, and mineral springs yield products of minor importance.

Fisheries. The chief fishing industries of the state are those of lobster and oysters, but these are not as large as formerly, and the cod, mackerel, and other fisheries are steadily declining.

Manufactures. The history of the development of manufacturing industries in Connecticut begins early in the colonial period and records a steady growth both in the value of products and in the number of wage earners employed. The hand-made nails, clocks, house-

hold utensils, the products of the hand looms, the "Yankee Notions" of long ago have been superseded by the products of great modern factories; but it was in the school of home and village industries that the inventors of Connecticut received their early training. Eli Whitney, the inventor of the cotton gin; Elias B. Howe and Allen B. Wilson, inventors of the sewing machine; Charles Goodyear, inventor of the process of vulcanizing rubber; and Samuel Colt, inventor and manufacturer of the Colt fire-arms, are a few of the many names of which Connecticut is proud. While all other industries have declined or have at least been modified by the growth and competition of the new western states, manufacturing industries have increased in number and in value and form the main source of Connecticut's wealth to-day. The causes of this wonderful growth have been the many and excellent water powers of the state; the numerous and safe harbors of the coast, with water communication to east and west; the close proximity to New York City, the financial and commercial center of the Union; the large amount of capital available for investment, furnished by the insurance and banking companies of the state; and Connecticut's liberal Joint Stock Act of 1837, permitting small sums to be capitalized in manufactures—an act which has been copied in Great Britain and elsewhere. To enumerate the different articles turned out by the state's factories would require much space, for out of the 359 manufactured products classified by the United States census, Connecticut produces 249 or nearly seven-tenths of the number. One-fifth of the total population of the state is employed in factories and, while her rank among the manufacturing states has declined since 1849-50, the number of employees and the value of manufactured products have enormously increased. The principal manufacturing industries (in the order of their value) are: textiles, consisting of cotton goods, silk and silk goods; woolen and felt goods; hosiery and knit goods; brass and bronze products, including the manufacture of rolled brass and copper and brass wares; foundry and machine shop products, including hardware, textile and metal-working machinery, and internal-combustion engines; firearms and ammunition; silverware and plated ware; corsets, in the production of which Connecticut is the leading state; automobiles, including bodies and parts; cutlery and tools; fur-felt hats, in which industry Connecticut holds second rank; electrical machinery, apparatus, and supplies; lumber and timber products; and clocks and watches.

Education. Connecticut has been among the foremost of the states of the Union in providing for the education of her people. In the early colonial days liberal provision was made for schools and after statehood was established the work was continued and extended. Elementary instruction is free for all children between the ages of four and sixteen years, and compul-

sory for all between the ages of seven and sixteen years. The state schools include elementary, high, and normal schools; every township of more than 10,000 is required to support an evening school for those over fourteen; and text-books are provided by the townships for those unable to purchase them. The Connecticut Agricultural College at Storrs, and the Connecticut Experiment Station at New Haven, afford opportunity for scientific agricultural training. A large number of private elementary and secondary schools of the highest repute are in successful operation. Higher education is provided by Yale University, at New Haven; by Trinity College, at Hartford; by Wesleyan University, at Middletown; and by the Hartford Theological Seminary. The state aids in the education of imbeciles, of deaf mutes, and the blind.

Government. The present constitution of Connecticut is the one framed and adopted in 1818, with its subsequent amendments. Suffrage is the right of all male citizens of the United States, twenty-one years of age and upward, who can read the English language, have lived in the state for one year and in the town six months previous to election. Excluded from the suffrage are all who have been convicted of heinous crime, unless pardoned. Women are given school suffrage. **Executive.** The executive officers are the governor, lieutenant-governor, secretary of state, comptroller and treasurer, all chosen by the electors for a term of two years; and the attorney-general, four years. The government of Connecticut is largely conducted by administrative boards such as the Board of Pardons, the State Library Committee, the Board of Mediation and Arbitration for the settlement of labor disputes, and the State Board of Charities. The Bureau of Labor Statistics has

among its duties the giving of helpful advice to immigrant laborers regarding their legal rights, and maintains free employment agencies in a number of the leading cities of the state. **LEGISLATIVE.** The legislative branch of the government—known as the General Assembly—consists of a Senate and House of Representatives. It meets at Hartford biennially (odd number years); the sessions are unrestricted as to length. Both senators and representatives are elected for a term of two years. **JUDICIARY.** The judges of the supreme court of errors and the supreme court are appointed by the General Assembly on nomination by the governor, for terms of eight years. Judges of the courts of common pleas and of the district courts are chosen in the same manner, for terms of four years. **LOCAL GOVERNMENT.** For local administration the state is divided into eight counties, which are sub-divided into towns, within which are cities and boroughs.

History. The first settlement by Europeans in Connecticut was made on the site of Hartford in 1633. In the same year trading and exploring parties from Massachusetts opened the way for the immigration into the Connecticut valley of Puritan colonists from Dorchester, Watertown, and New Town (now Cambridge). This colony may be said to date from the secession in 1634 of the more democratic element from Massachusetts. Its constitution of 1639 was "the first written democratic constitution on record." The royal charter of 1632, mainly a confirmation of the older one, was superseded only in 1818, when the present state constitution was framed and adopted. Prominent events in Connecticut history were the bloody war with the Pequot Indians, 1637; the governorship of Sir Edmond Andros, during a part of which (1687-'88) the colonial charter was in abeyance; and the abolition of slavery in 1818.

DELAWARE

DELAWARE, one of the South Atlantic States and one of the thirteen original states of the Union, lies between latitudes 38° 27' and 39° 50' N., and longitudes 75° 2' and 75° 47' W. It is bounded on the N. by Pennsylvania; on the E. by the Delaware River and Delaware Bay, which separate it from New Jersey, and by the Atlantic Ocean; and on the S. and W. by Maryland. Next to Rhode Island it is the smallest state in the Union, its area being 2,370 sq. m., of which 405 sq. m. represent water surface.

Relief. Delaware forms a part of the peninsula bounded on the E. by Delaware River, Delaware Bay, and the Atlantic Ocean, and on the W. by the Susquehanna River and Chesapeake Bay. It lies wholly within the Atlantic Coastal Plain region of the United States and, save for a small area in the north, is generally low and level. West of Wilmington, a ridge running in a northwesterly direction forms a watershed between the Christiana and Brandy-

wine Creeks, its highest elevation being 327 ft. above sea level. The northern portion of the state is a fertile, beautiful country, with broad pleasant valleys surrounded by low hills. South of the Christiana the surface is monotonous, a low elevation, running from northwest to southeast, forming the water-parting between the eastward and westward flowing streams. This southern section is mainly sandy, with quite extensive marshy and swampy areas.

Drainage. Delaware is drained by small and unimportant streams. Those of the northern section flow into Brandywine and Christiana Creeks, whose estuaries unite to form Wilmington Harbor. Vessels drawing 14 ft. of water can ascend the Christiana for 11 miles. The rivers of the eastern slope empty into Delaware Bay and the Atlantic Ocean; most of those of the western slope have a common outlet in the Nanticoke River of Maryland. Delaware Bay and Delaware River have a deep but not very direct channel, and the west shore is difficult

of approach. Delaware and Chesapeake Bays are connected by the Delaware and Chesapeake Canal, which is being enlarged and converted into a free ship canal, which will greatly facilitate trade between Philadelphia and Baltimore. The shore of Delaware Bay is marshy, that of the Atlantic sandy. Along the shore are some shallow lagoons, separated from the open sea by low sandy spits, the largest being Rehoboth Bay, which is connected on the south with Indian River Bay and admits vessels drawing 6 ft. of water. The principal harbors are Wilmington, New Castle, and Lewes.

Climate. The influence of the ocean and bays, between which Delaware lies, tends to a mild and temperate climate. The mean annual temperature is 55° F., ranging from 52° in the southern part to 56° in the north. There are extreme records of over 100° in the summer and -17° in the winter, but they are unusual. The annual rainfall ranges from 40 to 46 inches.

Agriculture. Delaware is distinctly an agricultural state, and the value of land is steadily increasing. There has been, however, in recent years, a decline in the number of acres cultivated, and in the average size of farms. The general character of Delaware agriculture is indicated by the fact that about one-half (51.4 per cent) of the total value of crops is represented by cereals, about one-fifth (20.1 per cent) by potatoes and other vegetables, and about one-eighth (12.9 per cent) by hay and forage. The remainder, 15.6 per cent of the total, consists of small fruits, orchard fruits, and nuts and forest products. The farms of the state are giving more and more attention to market-gardening, and especially to the raising of early spring vegetables for the great cities of the Atlantic Coast. Tomatoes and other vegetables are extensively grown for the canning establishments of the state.

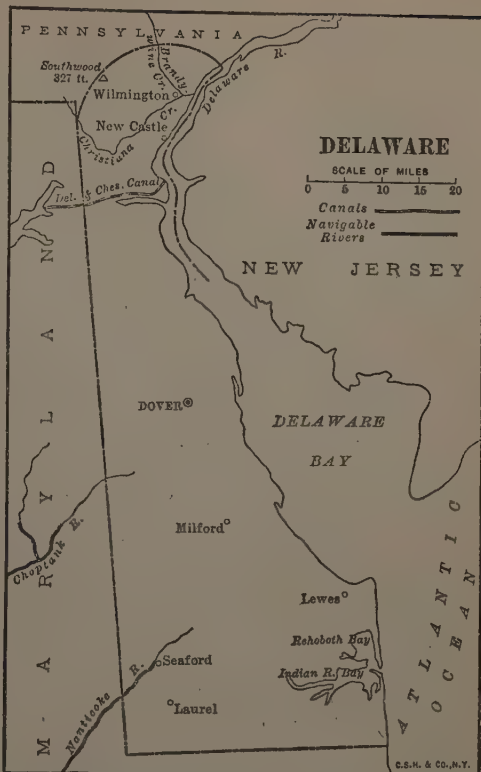
Fisheries. Oyster, menhaden, and other fisheries, and oyster-growing are among the important industries.

Minerals. Minerals are found only in the northern part of the state. Those of economic value are kaolin, granite, brick and tile clays.

Forests. The forests, which include an area of 700 sq. m., have been greatly reduced by constant cutting; little of the wood now standing is of commercial value.

Manufactures. Manufactures are varied and are carried on chiefly in Wilmington and New Castle. Measured by value of products, the leading manufactures of the state are: leather, foundry and machine shop products, steam-railroad cars, paper and wood pulp, and canning and preserving of fruits, vegetables, fish and oysters.

Education. Delaware has free public schools and a compulsory school-attendance law. Separate schools are provided for white and colored children. The public school system is under a state board of education, which is appointed by the governor and serves without compensation. The state has two normal schools, agricultural



and mechanical schools, and Delaware College at Newark. A college for colored students has been established at Dover. Thirty minutes each week in the public schools must be devoted to teaching morals and humanity.

Government. Delaware is governed under a constitution adopted in 1897, with subsequent amendments. All male adults of 21 years and over, citizens of the United States, who have resided in the state one year, in the county three months, and in the district 30 days next preceding the election, have the right to vote. But no person has the right to register as a voter unless he is able to read the state constitution in English and to write his name. United States soldiers and sailors merely stationed in the state are not considered residents. **EXECUTIVE.** The governor is elected for a term of four years, and he is ineligible for a third term. All his appointments to offices where the salary is more than \$500 must be confirmed by the Senate, and all pardons are subject to the approval of a Board of Pardons. The governor's power of veto extends to parts and clauses of appropriation bills, but a bill may be passed over his veto by a three-fifths vote of each house of the legislature. A bill becomes a law if not returned to the legislature within ten days after its reception

by the governor, unless the legislative session shall have expired in the meantime. **LEGISLATIVE.** The legislative branch of the government or the General Assembly, meets at Dover biennially (odd number years) its session being limited to 60 days. It consists of a Senate and a House of Representatives. Representation in the legislature is according to districts, members of the lower house being chosen for two, and members of the upper house for four years. Members of both houses must at the time of their election have been citizens of the state for at least three years; members of the House of Representatives must be at least twenty-four years of age, and members of the Senate, twenty-seven. **JUDICIARY.** The state judiciary is organized with six judges—a chancellor, a chief justice, and four associate justices of whom not more than three shall belong to the same party. All the judges are appointed by the governor, with the approval of the senate, for terms of twelve years. The six together constitute the supreme court of the state. A certain number of them hold courts of chancery, oyer and terminer, general sessions, and an orphans' court. When

a case is appealed to the supreme court, the judge from whose decision the appeal is made, may not hear the appealed case unless the appeal is made at his own instance. **LOCAL GOVERNMENT.** Delaware is divided into three counties and the counties are divided into hundreds which, corresponding to the townships of Pennsylvania, constitute the unit of local government.

History. Delaware River and Bay were explored by Henry Hudson in 1609. As a result of that voyage the territory was claimed by the Dutch, who planted a settlement near the present town of Lewes in 1631. The Dutch settlement was soon destroyed by the Indians, and the first permanent white settlements were made by Swedes and Finns in 1638; Dutch and Swedes contended for this region until 1655, when it passed under Dutch sway. After the transfer of New Netherland (New York) to the English, in 1664, Delaware became English also. Delaware was the first state to ratify the Federal Constitution on December 7th, 1787. Though a slave state until the civil war, Delaware took no part in the secession movement.

DISTRICT OF COLUMBIA

See map on page 52.

DISTRICT OF COLUMBIA, the federal district which contains the national capital of the United States. It lies on the eastern bank of the Potomac, at the head of tide and navigation, in latitude $38^{\circ} 53' 25''$ N., and longitude $77^{\circ} 00' 34''$ West. Area, 70 sq. m., of which 10 sq. m. represent water surface. It contains, besides Washington with Georgetown, several small villages. The District is administered by the Federal Government through three com-

missioners who are appointed by the President and confirmed by the Senate.

History. It was originally formed of cessions of territory, made by Maryland in 1788 and Virginia in 1789, comprising 100 sq. miles. It was organized in 1790-1791 and the seat of government was removed thither in 1800. The Virginia portion of the district was retroceded in 1846. Territorial government was established in 1871, a provisional government succeeded in 1874, and the present form was established in 1878.

FLORIDA

FLORIDA, the most southern of the South Atlantic States, lies between latitudes $24^{\circ} 30'$ and 31° N., and longitudes $79^{\circ} 48'$ and $87^{\circ} 38'$ W. It is bounded on the N. by Georgia and Alabama; on the E. by the Atlantic Ocean; on the S. by Florida Strait, and the Gulf of Mexico; and on the W. by the Gulf of Mexico and Alabama. Florida ranks twenty-first in area (58,666 sq. m., of which 3,805 sq. m. are water) among the states of the Union.

Coast. The coast line of Florida is greater than that of any other state, extending nearly 500 m. on the Atlantic and about 675 m. on the Gulf of Mexico. Along nearly the whole of the eastern coast and along much of the western coast is a line of narrow islands and sand reefs which fence from the ocean long, narrow, and shallow bodies of water called rivers, lagoons, bays, and harbors. These innumerable islands and keys are composed largely of sand, broken coral, and shell. A few of the southern keys are cov-

ered with hard rocky knolls; many are grassy or clothed with a jungle of shrubs and trees, and some of them have good soil. Their vegetation is West Indian rather than North American in character. The Florida Keys, an almost continuous chain of islands extending over 220 m. SW. from Biscayne Bay, are included in the state's boundaries, and the city of Key West on the island of the same name is the county seat of Monroe County. The western coast is more broken by bays and inlets than is the eastern coast. Its principal harbors are: Pensacola Bay, Tampa Bay, and Charlotte Harbor. The principal ports of the eastern coast are: Fernandina, Jacksonville, St. Augustine, and Miami.

Relief. The northwestern portion of Florida is a rolling, hilly country, similar to that of southeastern Alabama. The eastern section of the state belongs to the Atlantic Coastal Plain. The highest point, Mossyhead, is 274 ft. above the sea. Practically all of the state lies below

an altitude of 250 ft., this elevation being attained only in the extreme northwestern portion, and more than two-thirds of the state lies at an altitude of less than 100 ft. above tide level.

Drainage. Running N. and S. through the peninsula is a low ridge which forms the water parting between the streams flowing to the Atlantic and those flowing to the Gulf. Innumerable shallow lakes are scattered over the surface of the central part of the state, the largest being Lake Okechobee which has an area of over 1,200 sq. m., but whose depth is only about 15 ft. Among other lakes are Orange, Crescent, George, Weir, Harris, Eustis, Apopka, and Kissimmee. That many of the lakes are connected by underground channels is evidenced by the fact that a change in the level of one lake is often accompanied by a change in the level of another. Swamps and marshes are numerous, and include the Everglades in the south, covering more than 2,000,000 acres, the Kissimmee and Cypress swamps north of Lake Okechobee, and the Okefinokees wamp, which extends southward into the state from Georgia. Springs, many of which have saline and other mineral constituents, are found in various parts of the state; some of them are of great size and many have valuable medicinal properties. Green Cove spring, in Clay County, discharges about 3,000 gallons of sulphuretted water per minute. The springs often merge into lagoons and lake systems which are usually the sources of the rivers. The St. Johns River, which flows north from about the middle of the peninsula, enters the Atlantic near Jacksonville, and is navigable for nearly 250 m. from its mouth. The Withlacoochee, rising in the northeastern part of Polk County, flows north-west into the Gulf of Mexico. The Escambia, Choctawatchee, Apalachicola, and the Suwanee, have their sources in other states and traverse the northwestern part of Florida. In all, Florida has nineteen navigable rivers.

Climate. In climate Florida is like a great tropical island. It is cooled by sea breezes from the Gulf which make the climate remarkably equable; and the state is a favorite winter resort, both for tourists and invalids. The range between the mean summer and winter temperature is only about 20°; the greatest recorded extremes are 105° and 10° F. The mean annual temperature of the state is 70.8° F. The rainfall averages about 52 in. per annum. There are occasionally severe droughts.

Agriculture. The soil, while much of it seems a sterile sand, is helped to fertility by the abundant rainfall. Large areas are devoted to the raising of oranges, lemons, grapes, pine-apples, pears, guavas, figs, etc., and coffee, rice, cotton, and tobacco are natural products. Cocoanuts are also grown in the subtropical region. Market-gardening has become important. Of the state's entire land area, only 15 per cent is in farms. For the state as a whole, the average value of farm land per acre is \$17.84. The general character of Florida agriculture is indicated



by the fact that nearly one-fourth of the total value of crops is contributed by potatoes and other vegetables; about one-fifth by fruits and nuts; about one-sixth by cereals; and about one-seventh by cotton: the remainder, representing 24 per cent of the total, consists mostly of grains and seeds, forest products, and sugar crops. The principal crops are: tropical fruits, corn, cotton, peanuts, potatoes, sweet potatoes, yams, and tobacco.

Forests. The forests cover approximately three-quarters of the state and the lumber industries are important. About half the varieties of forest trees in the United States are found, but the yellow pine is predominant, except in the coastal marsh lands where cypress, found throughout the state, particularly abounds. Among the peculiar species are: the Florida mahogany, satinwood, cachibou, and the Florida yew and savin, both nearly extinct.

Fisheries. The fisheries are very valuable; the total number of species of fish in Florida waters is nearly 600, and many species found on one coast are not found on the other. The king fish and tarpon are hunted for sport, while mullet, shad, redsnappers, pompano, trout, sheepshead, and Spanish mackerel are of great economic value. The sponge and oyster fisheries are also important.

Minerals. The chief mineral product is phosphate rock. Fuller's earth, lime, and mineral waters are also produced.

Manufactures. Although Florida is not primarily a manufacturing state, its manufactures have shown a steady growth during the last sixty years. During this period, the gross value of products per capita for the entire population of the state increased from \$8 to \$97, and the proportion which the manufactures of the state represent of the total value of products

of manufacturing industries in the United States increased more than four-fold. The leading industries (in order of value) are: the manufacture of tobacco, lumber and timber products, turpentine and rosin, and fertilizers.

Education. The present system of common schools dates from the constitution of 1868 and the school law of 1869. The state constitution prescribes that white and colored children shall not be taught in the same school, but that impartial provision shall be made for both. There is no compulsory attendance law. The state provides higher education in the University of the State of Florida and a state Agricultural Experiment Station, both at Gainesville, and the Florida Female College at Tallahassee, which has the same standards for entrance and for graduation as the state university for men. Private educational institutions in Florida are: John B. Stetson University (Baptist) at Deland; Rollins College (non-sectarian) at Winter Park; Southern College (Methodist Episcopal, South) at Sutherland; the Presbyterian College of Florida at Eustis; Jasper Normal Institute at Jasper, and the Florida Normal Institute at Madison. The advanced education of negroes is provided for in the Florida Baptist Academy, and Cookman Institute (Methodist Episcopal, South), both at Jacksonville; and in the Normal and Manual Training School (Congregational), at Orange Park. There is a school for the blind, deaf, and dumb, at St. Augustine.

Government. The present constitution dates from 1886. The right of suffrage belongs to male citizens of the United States, twenty-one years of age or over, or those presenting naturalization certificates at registration centers, residents in the state one year and in the county six months at time of registration. To these requirements the payment of a poll tax has been added by legislative enactment. Insane persons and persons under guardianship, are excluded from the right of suffrage as are "all persons convicted of bribery, perjury, and larceny, or of infamous crime, or who shall make or become directly or indirectly interested in any bet or wager the result of which shall depend upon any election," or who shall participate in any duel. **EXECUTIVE.** The governor is elected for a term of four years and is not eligible for the next succeeding term. He appoints the circuit judges, the state attorneys for each judicial

district, and the county commissioners; he fills certain vacancies, and may suspend and with the Senate remove officers not liable to impeachment. He is a member of the Board of Pardons, of the Board of Education, and the Board of Commissioners of the state institutions. Other executive officers are: the secretary of state, attorney-general, comptroller, and commissioner of agriculture. **LEGISLATIVE.** The state legislature consists of a Senate and a House of Representatives. Sessions are held at Tallahassee biennially (odd number years), and are limited to sixty days. The legislature has power to establish and abolish municipalities, to provide for their government, to prescribe their jurisdiction and powers, and to alter or amend the same at any time. Senators are elected for four years, one half retiring every second year; and representatives are elected for two years.

JUDICIARY. The state judiciary consists of a supreme court, circuit courts, county courts, and justices of the peace. The three judges of the supreme court and the seven of the circuit courts serve for six years, those of the county courts for four years, and justices of the peace (one for each district, of which there must be at least two in each county) hold office for four years. County judges are required to act as judges of juvenile courts and keep a separate juvenile record, and the governor appoints probation officers in each county for dependent and delinquent children. **LOCAL GOVERNMENT.** The political unit of the state is the county. Five commissioners are elected for each county and their term of office is two years. For each county the officers are the clerk of the circuit court, sheriff, constables, a county assessor of taxes, tax collector, treasurer, superintendent of public instruction, and a county surveyor. Towns and cities have the privilege of establishing a commission form of government.

History. Florida was discovered by Ponce de Leon in 1513, settled by Huguenots in 1562, and permanently settled by Spaniards in St. Augustine in 1565. It was ceded to Great Britain in 1763, to Spain in 1783 and to the United States in 1819. In 1818 General Jackson invaded Florida, attacked the Seminoles, and captured Pensacola, which was then restored to Spain. The state was admitted to the Union in 1845, seceded in 1861, and was readmitted in 1868.

GEORGIA

GEORGIA, one of the South Atlantic States and one of the thirteen original states of the Union, lies between latitudes 30° 25' and 35° N., and longitudes 80° 48' and 85° 54' W. It is bounded on the N. by Tennessee and North Carolina; on the E. by South Carolina and the Atlantic Ocean; on the S. by Florida, and on the W. by Alabama. Georgia ranks tenth in area (59,265 sq. m., of which 540 sq. m. represent water surface) among the states of the Union.

Coast. The immediate shore line is bounded by a series of islands only slightly elevated above sea level. These islands are famous for their cotton, and are covered with a growth of oak, palmetto, magnolia, cedar, pine, and myrtle.

Relief. All of the physiographic belts of the eastern United States—Coastal Plain, Appalachian Mountains, Great Appalachian Valley, and Appalachian Plateau—are represented in Georgia. More than half the area of the state,

about 35,000 sq. m. (locally known as Southern Georgia), is occupied by the Coastal Plain section which extends from the Atlantic coast northward and northwestward to the "fall-line." In elevation this section rises from sea level on the eastern border to altitudes of from 150-500 ft. along the "fall-line." For some miles back from the coast the surface is low and nearly level. Farther inland to the NW., the country becomes more rolling and varied in character. The "fall-line" in Georgia extends southwest from Augusta on the NE. boundary, through Milledgeville and Macon, to Columbus on the W. boundary. The Piedmont section forms a broad belt across the north-central portion of Georgia from the "fall-line" to the Blue Ridge escarpment on the NW. The altitudes range from about 350 ft., where it joins the Coastal Plain, to 1,200 ft. and more near its northern margin. The Blue Ridge escarpment, a striking topographic feature in the states to the northward, in Georgia marks the southeastern limit of the Appalachian Mountain region and the Great Valley region. This part of the state is occupied by ridges and high peaks of the southern Appalachian ranges, together with numerous limestone valleys in the extreme northwestern portion of the state, and beyond this is a small area of the Appalachian Plateau, known here as the Cumberland Plateau. There is wide range of altitudes in this northern section of the state, some of the mountains rising to altitudes in excess of 3,000 ft., while the rolling valley floors which are interrupted by numerous ridges rise from 750-900 ft. The highest point in the state, Sitting Bull (5,046 ft.), is in Towns County.

Drainage. On the Blue Ridge escarpment near the northeastern corner of the state is a water parting which separates the waters flowing NW. to the Tennessee River, SE. to the Atlantic Ocean, and SW. to the Gulf of Mexico, respectively. The waters flowing into the Atlantic and those flowing into the Gulf are separated by a highland which extends from the Blue Ridge escarpment SW. to Atlanta and then S. and SE. to the Florida line. The Great Valley region and a considerable portion of the Appalachian Mountain region are drained by the Coosa, the Tallapoosa, and their tributaries, into Mobile Bay; but the Cumberland Plateau constitutes a part of the Tennessee basin. The principal rivers of the state are: the Chattahoochee and the Flint, which unite in the southwestern corner to form the Apalachicola; the Ocmulgee and the Oconee, which unite in the southeast to form the Altamaha; and the Savannah, which forms the boundary between Georgia and South Carolina. All of these rise in the upper part of the Piedmont Plateau, through which their course is rapid, affording excellent water power to the "fall-line," south of which they are navigable to the sea.

Climate. The climate is varied in different parts of the state. The mountain country in

the N. has cool, delightful summers and mild winters, with a mean annual temperature of about 40° F. This is one of the most salubrious areas in the country. The Piedmont section is warmer, but equally healthy, and has a mean temperature of from 60° to 65°. The Pine Barrens of the Piedmont and Coastal Plain sections are warm and healthful, and are especially recommended as a winter resort for invalids. The coast region and the southern portion generally are more enervating, and have a mean annual temperature of about 70°. The average rainfall for the state is 49.3 in. Snow falls occasionally in the northern and central regions, but less frequently in the south, and it never remains long.

Agriculture. The soils of the state are as varied as are its surface and climate. They range from the dark mucky soils of the Flatwoods region through grey and yellow sandy soils, heavy red sandy loams and red clays, to the sandy and silty loams of the mountain region and the dark brown or red clay loam and stony loams of the limestone valleys. Of the state's entire land area more than seven-tenths is in farms. During the last decade (1900-10) there was an increase in the total farm acreage, in the improved acreage, and in the number of farms, and the total value of farm property increased 154.2 per cent. Most of the plantations of the 19th Century have been divided into smaller parcels of land operated largely by tenants. The products of Georgia are so diversified



that, with the exception of the sub-tropical fruits of southern California and Florida, almost everything cultivated in the United States can be produced. The chief agricultural staple of the state is cotton, which contributes about two-thirds of the total value of crops raised in the state. About one-fifth is contributed by cereals. Other crops, representing about 15.1 per cent, consist for the most part of potatoes and other vegetables, and forest products. The leading crops (in the order of importance as judged by value) are: cotton, rice (an important product of the coast counties), sugar cane, corn, cottonseed, sweet potatoes and yams, oats, hay and forage. In the lowlands tropical fruits readily mature, while in the higher belts, peaches, apples, pears, etc., flourish. Fruits and market vegetables are exported to the North. The dairy, poultry, and live stock interests of the state are increasing rapidly.

Fisheries. The fisheries of the state are not extensive, but are of some importance, especially the oyster and shad fisheries.

Forestry. The forests of Georgia include the yellow pines of the southern part of the state, valuable for rosin and turpentine as well as their lumber products, and the cypress, oak, and poplar.

Minerals. The state has varied mineral resources, a total of thirty-nine different minerals being found within its borders. The most important is stone. The marble and granite quarries rank third in the United States in the value of their output. Other mineral products are: gold, silver, coal, iron and manganese ores, iron pyrites, beauxite, graphite, lime, ochre, infusorial earth, natural cement, talc and soap stone.

Manufactures. Though Georgia is an agricultural rather than a manufacturing state, it has been for the past sixty years one of the leading and most progressive industrial states of the South. The chief features of its industrial activity are its early beginning and its steady and constant development. The superior transportation facilities of the state account in part for its rapid industrial growth. It is traversed by the important railway systems of the South, which afford easy access to all parts of the state. It furnishes, also, excellent advantages of water communication. The most important industries (judged by value of product) are: cotton goods, lumber and timber products, cottonseed-oil and cake, fertilizers, flour and grist-mill products, turpentine and rosin.

Education. Georgia has a complete public school system but no compulsory education law. Public schools are under the supervision of a school commissioner and a state board of education, the latter being professional rather than political in its character. There is also a school supervisor in each county. In addition to the public schools the state supports the University of Georgia at Athens, and eleven agricultural and mechanical arts colleges. Af-

filiated with the university, but not receiving state funds, are three preparatory schools, the South Georgia Military and Agricultural College at Thomasville, the Middle Georgia Military and Agricultural College at Milledgeville, and the West Georgia Agricultural and Mechanical College at Hamilton. Among the denominational institutions are—Baptist: Mercer University at Macon, Shorter College at Rome, Spelman Seminary for negro women and girls in Atlanta, Bessie Tift College (formerly Monroe College for women) at Forsyth; Methodist Episcopal: Emory College at Oxford, Wesleyan Female College at Macon; Methodist Episcopal, South: Young Harris College at Young Harris, Andrew Female College at Cuthbert, Dalton Female College at Dalton; Presbyterian: Agnes Scott College at Decatur; African Methodist Episcopal: Morris Brown College at Atlanta; Non-Sectarian, for women: Lucy Cobb Institute at Athens, Cox College at College Park near Atlanta, Brenau College Conservatory at Gainesville; Non-Sectarian for negroes: the Atlanta University at Atlanta.

Government. The present constitution of Georgia was adopted in 1877 and has since been amended at various times. Excluded from the suffrage and the holding of office are: idiots, women, insane persons, and all those who have been convicted of treason, embezzlement, malfeasance in office, bribery, larceny, or any crime involving moral turpitude (unless pardoned). Before 1909 any male citizen of the United States at least twenty-one years of age (except those mentioned above), who had lived in the state for one year immediately preceding an election and in the county six months, and had paid his taxes, was entitled to vote. By a constitutional amendment which came into effect on the 1st of January, 1909, it is further required that a voter shall have served in land or naval forces of the United States or of the Confederate States, or of the state of Georgia in time of war, or be lawfully descended from some one who did so serve; or that he be a person of good character who proves to the satisfaction of the registrars of elections that he understands the duties and obligations of a citizen; or that he read correctly in English and (unless physically disabled) write any paragraph of the Federal or state constitution; or that he own forty acres of land or property valued at \$500 and assessed for taxation. The amendment further provides that after the 1st of January, 1915, no one may qualify as a voter under the first or second of these clauses (the "grandfather" and "understanding" clauses); but those who shall have registered under their requirements before the 1st of January, 1915, thus become voters for life.

EXECUTIVE. All executive officers are elected for a term of two years. There is no lieutenant-governor. The governor "must be at least thirty years old, must at the time of his election have been a citizen of the United States for fifteen years and of the state for six years, and

shall not be eligible for reelection after the expiration of a second term for the period of four years." In case of his death, removal, or disability, he is to be succeeded in the first instance by the president of the Senate, and in the second, by the speaker of the House of Representatives. The governor's power of veto extends to separate items in appropriation bills, but his veto may be overridden by a two-thirds vote of the legislature. The people elect an attorney-general for the state, and the General Assembly elects a solicitor-general for each judicial court. **LEGISLATIVE.** The legislature or General Assembly consists of a Senate and a House of Representatives. Legislative sessions are held annually at Atlanta and are limited to 60 days. Members of the Senate must be at least twenty-five years old, must be citizens of the United States, and must, at the time of their election, have been citizens of the state for at least four years, and of the senatorial district for one year; representatives must be at least twenty-one years old, and must at the time of their election have been citizens of the state for two years. **JUDICIARY.** The judiciary of the state consists of a supreme court, court of appeals, a

superior court, and courts of justice of the peace. The supreme court consists of a chief justice and five associate justices chosen by popular election for terms of six years. There is a superior court judge for each judicial circuit, the judge being elected by the general assembly for a term of four years. The superior court must sit in the county not less than twice in each year. The powers of a court of ordinary and of probate are vested in an ordinary for each county, and in each militia district the voters elect a justice of the peace whose term of office is four years, as is also that of the county ordinary.

History. Georgia, named in honor of George the Second, was settled by a chartered company of English colonists under Oglethorpe in 1733, as a refuge for poor whites and persons seeking religious freedom. Georgia became a Royal Province in 1752, and was the fourth state to ratify the Federal constitution (January 2, 1788). It seceded in January, 1861, and was readmitted to the Union in June, 1868. Because of its noble, progressive spirit and its rapid industrial growth, it is now known as the "Empire State of the South."

GUAM

GUAM, an island in the North Pacific Ocean, belonging to the United States. It lies at the southern extremity of the Mariana or Ladrone Archipelago, in latitude 13° 26' N., and longitude 144° 43' E., and is the largest island of the group. Guam is about 30 m. long from northeast to southwest, and has an average width of 6½ miles. Its area is 210 sq. miles.

Relief. The northern portion is a plateau lying from 300 to 600 ft. above the sea, lowest in the interior and highest along the east and west coasts, where it terminates in bold bluffs and headlands. Mt. Santa Rosa, toward the northern extremity, has an altitude of over 800 feet. The southern portion of the island is traversed from north to south by a range of hills from 700 to 1,200 ft. in height. Mt. Jumulong Mangloc (1,275 ft.) is the highest point. Between the base of the steep western slope of these hills and the sea is a belt of lowlands. On the eastern side, the surface has a general slope toward the east and terminates in a coast line of bluffs.

Drainage. A number of rivers have their sources in the hills, but their courses are short. At Apra is a naval station, and the port of entry is Piti.

Climate. Guam, lying in tropic seas, and having a mean annual temperature of about 81 degrees, is on the dividing line between the northeast trade winds and the monsoons of the China Sea. From December to June the prevailing winds are from the northeast. The nights are cool and refreshing showers are frequent. The most agreeable months are March, April, May and June. From July to December,

southwest winds hold sway, often accompanied by heavy rains. Hurricanes may occur at any time, but are most frequent in October and November. They are much to be dreaded, and often cause great loss of life and property. Earthquakes, while frequent, are not generally violent, but there have been some very destructive ones.

Agriculture. The lowlands of Guam have a rich soil, and agriculture is the main industry. Most of the farm lands lie along the southwest coast. Although but a small portion of the island is as yet under cultivation, the area utilized is increasing under government encouragement. The chief products are maize, cocoanuts, rice, sweet potatoes, coffee, and sugar. The land possesses much valuable timber, but there is no mineral wealth, with the possible exception of coal.

Forests. The trees native to the island are the breadfruit, banyan, ironwood, and several kinds of palms, including the cocoanut. The latter is the most valuable of all, as the pulp of the nut, dried, and known as "copra," supplies the islanders with their principal article of export.

Minerals. There is, so far as is now known, no mineral wealth in Guam, but some indications of iron ore and also of gypsum may prove in time to be important.

Inhabitants. The inhabitants of Guam are descendants of the original Chamorros and of immigrant Tagals and Spaniards from the Philippine Islands. In their physical characteristics the natives resemble the Hawaiians, having light brown skin, straight black hair and fine features. The men are dressed in shirt and

trousers, with a straw hat, and the women in white waist with flowing sleeves and a trailing skirt. The people of Spanish extraction are fairly intelligent, live in houses built of coral stone, and have many of the comforts of life. The poorer classes, natives and half-breeds, live in wooden shacks, built on poles three or four feet above the ground, the space below being utilized by the pigs, dogs and chickens owned by the family. They are naturally indolent, cowardly and superstitious, but they have their redeeming qualities and show much of friendliness when properly treated. Their love for music is indulged to the utmost, and it is believed by those most conversant with their characteristics that education and training will make these people industrious, sober and useful members of their community. The native language contains Chamorro and Tagal words, but Spanish is also spoken, and the use of English is spreading.

Education. A compulsory school system is in operation both in Agaña and in the native villages. The children are taught in English, and also receive instruction in carpentry and other handicrafts. An agricultural experiment station has been established by the Federal government.

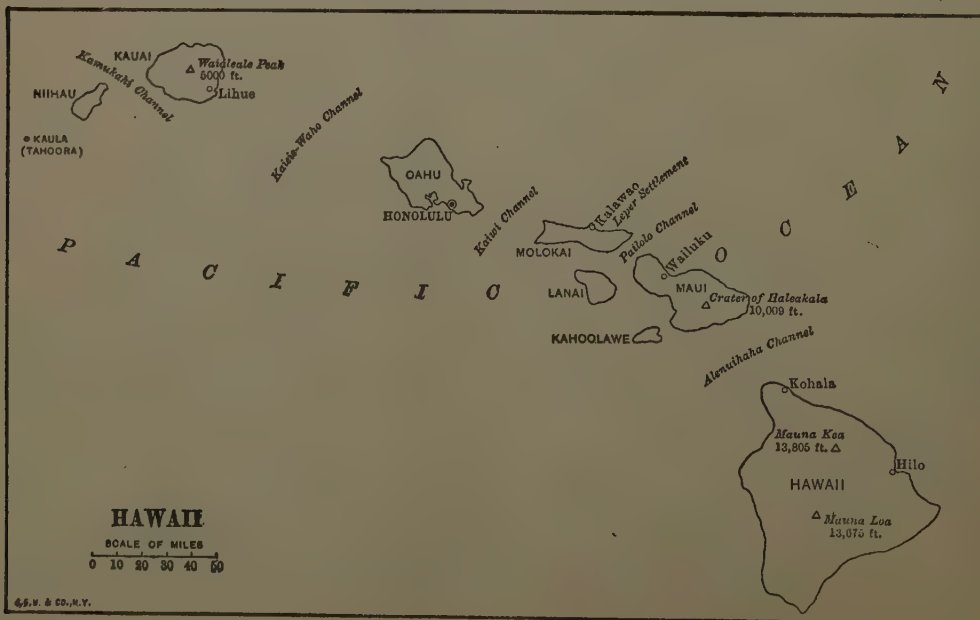
Government. The island is under the jurisdiction of the naval department of the United States, and has been designated as a naval station for the purposes of government and protection. The governor of the island, a naval officer appointed by the President, is commandant of the naval station, and also the military commandant of the island. He combines the functions of the legislative, executive, and judicial powers of the government. The judicial system comprises one island court for the trial of all cases, criminal and civil, and one court of appeals. There is a wireless telegraph plant on the island, which is in cable telegraphic communication with all parts of the world. There is a monthly mail service per westbound U. S. Army Transports from San Francisco, via Honolulu, to Manila. The port is closed to foreign vessels of war and commerce except in special cases. Permission to visit the island must be obtained from the naval department of the United States Government.

History. The Mariana Islands were discovered by Magellan in 1521, but it was a century and a half later before any attempt was made to plant a colony and civilize the natives. After the war of 1898 the Island of Guam became a possession of the United States.

HAWAII

HAWAII. (Hawaiian or Sandwich Islands), a Territory of the United States, occupying a group of islands in the North Pacific Ocean, about 2,000 m. southwest of San Francisco. The islands, twelve in number, form a beautiful

chain, which runs from southeast to northwest, and lies in latitude 19° to 22° N., and longitude 155° to 160° W. The archipelago contains 6,449 sq. miles. There are eight inhabited islands—Hawaii, Maui, Kahoolawe, Lanai, Mo-



lokal, Oahu, Kauai, and Niihau. In addition there are many uninhabited islands and islets, which continue the chain in a northwesterly direction beyond the limits above given. They are valuable only for their guano deposits and shark fishing grounds. The islands are of volcanic origin, with coral reefs partly encircling most of them, the only well-protected harbor being that of Honolulu on Oahu Island.

Hawaii Island, which gives the name to the group, is roughly triangular in shape, and its coast, unlike that of the other islands of the archipelago, has few coral reefs. Its surface is mainly occupied by five volcanic mountains. Of these, Mauna Loa, in the southern half of the island, is the largest volcano in the world, measuring, at its base, about 75 m. from north to south and 50 m. from west to east. It rises to a height of 13,675 ft. above sea level. Adjoining it on the southeast is Kilauea (4,040 ft.) whose lava flows have formed the southeastern extension of the island. Northeast of Mauna Loa, joined to it by an intervening plateau, is Mauna Kea (13,895 ft.) or White Mountain, the loftiest summit in the Pacific Ocean. To the northwest Mauna Loa is merged in Mauna Hualalai (8,273 ft.). The Kohala Mountains (5,595 ft.) rise abruptly from the northwestern shore. Of the above volcanoes, Mauna Loa and Kilauea are still active.

Maui Island, lying about 25 m. northwest of Hawaii, is composed of two mountainous peninsulas connected by an isthmus seven or eight miles long and five or six miles wide. The eastern mountain, Haleakala is the largest crater known in the world. It is from 25 to 30 m. in circumference, from 2,000 to 3,000 ft. deep, and is more than 10,000 ft. above sea level. The mountain mass of western Maui is characterized by sharp ridges and deeply eroded gorges or valleys. Puu Kukui, its highest point, rises nearly 6,000 ft. above the sea. Below this, the Iao Gorge, or valley, five miles long and two miles wide, is cut into the mountain to a depth of 4,000 feet. Many of the valleys of the island are famed for the beauty of their scenery.

Kahoolawe is a small island, about five miles wide and fifteen miles long, lying about six miles southwest of Maui. Its bare and rugged mountains nowhere attain an elevation of more than 1,500 ft., and its intervening valleys are used extensively for sheep pastures. Kahoolawe is privately owned, as is also the island of Lanai seven miles to the westward.

Molokai Island, eight miles northwest of Maui, is about forty miles long from east to west, and has an average width of $6\frac{1}{4}$ miles. It is mountainous, its culminating point being the peak of Kamakou (5,000 ft.). About midway of the northern shore is a peninsula, on which is established the famous Leper Settlement of Molokai.

Oahu Island, twenty-five miles northwest of Molokai, is traversed from northwest to southeast by two nearly parallel ranges of hills, which

are separated by a wide plain. The highest point on the island is Mauna Kaala (4,000 ft.) in the Waianae or Western Range. This island is nearly surrounded by a coral reef, which in places is half a mile in width.

Kauai Island, known as the "garden isle" of the group, lies about sixty miles northwest of Oahu. It is roughly circular in form, and is about twenty-five miles in diameter. On the northwest the island rises for over 2,000 ft. sheer from the sea, and above this precipitous wall is a mountain plain; elsewhere the island has a shore plain. Near the center of the island Mt. Waialeale rises to an elevation of 5,000 feet. The shore plain is broken by ridges and deep valleys. The island is well watered on both sides by large mountain streams.

Niihau Island is the most western of the inhabited islands. It lies nearly twenty miles southwest of Kauai.

Climate. The Hawaiian Islands, though within the tropics, enjoy a fairly temperate climate with a mean temperature of 74.3 F. Rains, brought by the N. E. Trade winds, are frequent on the side of the mountains which faces that quarter, but on the other parts of the islands little rain falls, and the sky is generally cloudless. The yearly rainfall is about 54 inches.

Agriculture. On the plains of Hawaii thousands of sheep of the merino breed find grazing ground; and on most of the island, while the upland slopes of the mountains are clothed with dense forests, the lower levels spread into grassy plains rich with sugar and rice plantations. The staple foods of the natives consist of *poi*, a thick paste made from the root of the *taro* plant, and raw or dried fish. Other agricultural products of the island are sisal, bananas, pineapples, wool, tobacco, cotton, and rubber.

Minerals. The islands have large supplies of pumice, sandstone, sulphur, gypsum, alum and mineral paint ochres, and some salt, kaolin, and salamoniac, but otherwise they are without mineral wealth.

Forests. The Hawaiian forests are tropical and are composed largely of trees below the medium height. The destruction of considerable portions of the forests by fire and cutting has been followed by re-foresting, and the establishment of forest reserves both privately and government owned. Hawaiian mahogany furnishes much valuable lumber. Rubber is extensively cultivated.

Manufactures. The manufacturing establishments of the Hawaiian Islands turn out products to the value of fifty million dollars annually, and the manufacturing industries of the territory as a whole show a tendency to increase. The prosperity of Hawaii depends largely upon its sugar products, the value of the output being many times greater than that of all others combined. Next in importance to sugar are the cleaning and polishing of rice and coffee, and the preserving of pineapples. All the

other manufacturing industries are maintained for supplying local needs.

Commerce. Many lines of steamers connect the islands with the United States, Australia, the Philippines, China, and Japan. An inter-island steam navigation company provides communication between the different islands. There are nearly 300 m. of railway in the islands, and new lines are projected. Hawaii is connected by cable with both shores of the Pacific, and the Marconi system of wireless telegraphy is established in the islands.

Inhabitants. Of the different races occupying the archipelago, the Japanese are the most numerous. Hawaiians and part Hawaiians are next, then follow Portuguese, Chinese, Americans, British and German subjects, Koreans, Spanish, and Porto Ricans. Chinese, Japanese, and Corean immigration is now prohibited.

Education. Schools are established all over the islands, and elementary education is free. Besides the elementary schools, the Territory is provided with a normal and training school, a reformatory industrial school, and a college of agriculture and the mechanic arts. Nearly all the natives are Christians. Roman Catholics, Protestants, Buddhists, and Mormons are represented in the population.

Government. Hawaii is administered by a governor who is appointed for four years by the President of the United States. The Territory is represented in the Congress of the United States by a delegate elected biennially. The territorial legislature consists of two houses—a

senate, members of which are elected for four years, and a house of representatives, members of which are elected for two years. Legislative sessions, limited to sixty days, are held biennially at the capital, Honolulu. For purposes of local government, the Territory is divided into counties within which the local authorities have restricted powers. Hawaii has a supreme court, circuit courts, district courts, and a land registration court; the circuit judges sit also as juvenile courts. The judges of the supreme court and circuit courts are appointed by the President of the United States, the district magistrates by the chief justice of the supreme court. There is also a United States district court, the judges of which are appointed by the President.

History. The islands are said to have been discovered in 1542 by Gaetano, and rediscovered in 1778 by Captain Cook. Kamehameha formed the islands into one kingdom. Missionaries came from America in 1820, and in less than forty years they gave to the whole Hawaiian people the rudiments of a common school education and taught them something of domestic science. In 1843 the independence of the kingdom was guaranteed by the French and English governments. Kalakaua, elected king in 1874, died in 1891, and was succeeded by his eldest sister, Liliuokalani, who was dethroned in January, 1893, and a provisional republican government set up. The islands were finally annexed by the United States in 1898, and in 1900 were organized as one of the territories of the United States.

IDAHO

IDAHO, one of the Mountain States of the United States, lies between latitudes 42° and 49° N., and longitudes 111° and 117° W. It is bounded on the N. by British Columbia and Montana, on the E. by Montana and Wyoming, on the S. by Utah and Nevada, and on the W. by Oregon and Washington. The state has an extreme length from north to south of 490 m., and an extreme width from east to west of 305 miles. In gross area it ranks twelfth among the states of the Union (83,888 sq. m., of which 534 sq. m. represent water surface).

Relief. Idaho has a mean elevation of 4,500 ft. above sea level, the lowest point (738 ft.) being at Lewiston, Nez Percés County, and the highest point, Hyndman Peak (12,078 ft.), on the boundary between Custer and Blaine Counties. Idaho comprises three physiographic provinces: the Rocky Mountain Region, the intermontane Plateau Region, and the Great Basin Province. The Rocky Mountains occupy the eastern and extreme northern portions of the state. The state's irregular northeastern boundary is formed by the main ridge of the Rocky Mountains and its northward extensions, the Bitter Root, the Coeur d'Alene, and Cabinet Ranges. The Rocky Mountains occupy the northern, or Panhandle, part of the state.

Farther south, where the state is widest, the area is roughly divided by the Salmon River Range, among whose numerous lofty peaks is found the highest point in the state, Hyndman Peak, mentioned above. The scenery of the mountainous region of Idaho is wild and impressive. The region is made up in general of high ranges preserving some remnants of ancient glaciers, many sharp peaks and ridges, "U"-shaped valleys, cirques, lakes, and waterfalls. The western portion of the state, except in the extreme north, is occupied by the great plateau-like plains constituting the northwestern intermontane region, which lies between the western slopes of the Rockies and the eastern slopes of the Cascade Ranges. A broad extension of this plateau borders the Snake River, and extends nearly to the eastern boundary of the state. Through this elevated plateau the Snake River and its tributaries have cut deep gorges and canyons. Many volcanic cones and mountain masses mark its surface. The southeastern portion of the state belongs in the Great Basin Province of the United States. The topography of this region is similar to that of the same region in other states; its mountains are practically a part of the Wasatch Range of Utah, and they form the watershed dividing the

Snake River Valley from the Great Salt Lake Basin.

Drainage. The Snake (or Lewis) River receives all the drainage of Idaho, except small amounts taken by the Spokane, Pend d'Oreille, and the Kootenai in the north (all of which empty directly into the Columbia), and by some minor streams of the southeast that empty into Great Salt Lake, Utah. The Snake River is the largest affluent of the Columbia. It rises in Yellowstone National Park, a few miles from the source of the Madison Fork of the Missouri which flows into the Gulf of Mexico, and Greene Fork of the Colorado, which flows into the Gulf of California. It flows southward and then westward for about 800 m. in a tremendous canyon across southern Idaho, turns north and for nearly 200 m. forms the boundary between Idaho and Oregon, and for a short distance between Idaho and Washington. At Lewiston it turns westward into the state of Washington, where it empties into the Columbia River. The walls of the canyons through which it flows vary from a few hundred feet to 6,000 ft. in height. The largest falls of the river are the Shoshone Falls, Lincoln County, where the river makes a sudden plunge of nearly 200 ft. These are the most impressive falls in the United States, after those of Niagara. The largest affluents of the Snake River are the North Fork, the Raft, the Salmon Falls, the Bruneau, the Owyhee, the Payette, and the Clearwater. Scattered among the mountains are numerous lakes, among the best known being Coeur d'Alene Lake, in Kootenai County; Priest Lake, in Bonner County; and between Bonner and Kootenai Counties, Lake Pend d'Oreille, an extension of the Clark Fork River; Bear Lake, in the extreme southeast, lying partly in Utah. Mineral springs and hot springs are found in more than a third of the counties of the state.

Climate. Notwithstanding the elevated character of the state, the winters are not often severe, and even in the north cattle may range in the valleys all winter without shelter or fodder. The mean annual temperature of the state is about 45.5° F. The mildest parts of the state are the Snake River Basin between Twin Falls and Lewiston, and the valleys of the Boise, Payette, and Weiser Rivers. Here the mean annual temperature is 52° F. In the upper Snake Basin, in the Camas Prairie and Lost River regions, the climate is much colder. The northern part of the state receives sufficient rainfall for the growing of most crops without irrigation, the normal annual precipitation ranging from 20 to 25 in. and over. In the southern section of the state the precipitation is much less. The mean annual rainfall for the entire state is nearly 17 inches.

Agriculture. Except for the broad valleys of the Panhandle, where the soils are black in color and rich in vegetable mold, the surface of the state is arid. The Snake River valley is a vast lava bed covered with deposits of salt and



sand, or soils of volcanic origin. The principal source of wealth in Idaho is agriculture, but for many years it was secondary to mining. The state's agricultural development was long impeded by the lack of transport facilities and the absence of near-by markets. The building of railways and the construction of irrigation projects have brought a great change to the state's industrial life. In the state as a whole, fully one-half of the farms are irrigated. The leading crops of the state (in the order of their importance as judged by value) are: hay and forage, wheat, oats, barley, and potatoes. The stock-raising industry is carried on most extensively in the southeastern part of the state, and Idaho is one of the first wool-producing states.

Forests. Evergreen (coniferous) trees cover many of the hills and mountains with a dense forest. Red cedar predominates in the north, and pines, firs, spruce, etc. are abundant in many districts. Of hardwood timber there is very little in the state.

Minerals. The mineral interests of Idaho are now second to those of agriculture. The principal products are gold and silver. Idaho is one of the greatest lead-producing states in the country. Other minerals of economic value are zinc, sandstone, limestone, and coal. Minerals which are as yet comparatively undeveloped are granite, surface salt, nickel, cobalt, tungsten, monazite, and zircon.

Manufactures. Since the admission of Idaho as a state of the Union, its development

in manufacturing has more than kept pace with its growth in population. The most important industries (arranged in the order of value of products) are: the manufacture of lumber and timber products, cars and general shop construction and repairs by steam railroad companies, printing and publishing, and dairy products.

Education. The public schools of the state are under the control of a state board of education, and under the supervision of a state superintendent. School attendance is compulsory for children between the ages of eight and eighteen years, unless they are excused on a doctor's certificate, or are over fourteen years of age and have passed through the eighth grade. Higher education is provided by the University of Idaho at Moscow, and the Academy of Idaho at Pocatello, an institution with industrial and technical courses and a preparatory department. There are two state normal schools, one at Lewiston and the other at Albion. The state has an industrial training school and a school for the deaf and blind. There are a number of sectarian colleges or schools to which pupils are admitted without respect to their religious belief, among them being the College of Caldwell (Presbyterian), at Caldwell; Catholic academies at Boise and Coeur d'Alene; and a Convent of Our Lady of Lourdes, at Wallace. There are Mormon schools at Paris, Preston, Rexburg, and Oakley; a Methodist Episcopal school at Weiser; and a Protestant Episcopal school, at Boise.

Government. Idaho is governed under the constitution adopted in 1889, and its amendments. The right of suffrage is bestowed upon all citizens of the United States, male or female, who have resided in the state for six months and in the county for thirty days preceding the election. Excluded from the suffrage are idiots, insane persons, persons convicted of felony, bigamists, polygamists, and persons under guardianship. **EXECUTIVE.** The chief executive officers are the governor, lieutenant-governor, and attorney-general, each of whom must be at least thirty years of age; and the secretary of state, state attorney, treasurer, and superintendent of education, who must be at least twenty-five years of age. All executive officials serve for a term of two years. The governor's veto may be overridden by a two-thirds vote of the legislature. **LEGISLATIVE.** The legislature, consisting of a Senate and a House of Representatives, meets at Boise biennially (odd number

years), the sessions being limited to 60 days. Its members must be citizens of the United States and electors of the state for one year preceding their election. They are elected biennially. The number of senators may never exceed twenty-four; that of representatives sixty. Each county is entitled to at least one representative. **JUDICIARY.** Judicial power is vested in a supreme court of three judges, elected by the state at large for six years; and in district courts, in each of which a judge is elected for four years. There are also probate courts, and justice of the peace courts. **LOCAL GOVERNMENT.** The legislature maintains a uniform system of county government, and by general laws provides for township and precinct organization, and for the incorporation, organization, and classification of cities and towns. The county officers are county commissioners, a sheriff, treasurer, probate judge, county superintendent of public instruction, assessor, coroner, and surveyor—all elected biennially. Other county officers are a clerk of the district court, one elected by each county for a term of four years; and a prosecuting attorney, one elected by each county for a term of two years.

History. The first recorded exploration of Idaho by white men was made by Lewis and Clark in 1805. In 1810, Ft. Henry on the Snake River was established by the Missouri Fur Company. In 1834 Ft. Hall in east Idaho was founded. Missions to the Indians were established by both Catholics and Protestants about the same time. The territory now constituting Idaho was comprised in the territory of Oregon from 1848-'53; from 1854-'59 the southern portion of the present state was a part of Oregon, and the northern portion, a part of Washington Territory; from 1859-'63 the territory was within the bounds of Washington Territory. Idaho was organized as a territory on March 3rd, 1863, but at that time included both Montana and Wyoming, and comprised more than three times its present area. In May, 1864, a part was set aside as Montana, and in 1868 Wyoming was organized, and Idaho assumed its present boundaries. Gold was discovered in 1860, and the population of the territory rapidly increased. Idaho was admitted to the Union as a state in 1890. Between 1857 and 1877 there were a number of serious Indian outbreaks. In later years there were frequent conflicts in the mining districts between the union and non-union laborers, and United States troops were called in to quell the trouble.

ILLINOIS

ILLINOIS (the Prairie State), an East North-Central State of the Union, lies between latitudes 36° 59' and 42° 30' N., and longitudes 87° 30' and 91° 38' W. It is bounded on the N. by Iowa and Wisconsin; on the E. by Lake Michigan, Indiana, and Kentucky; on the S. by Kentucky and Missouri; and on the W. by Missouri and Iowa. The state has a total area

of 56,665 sq. m., of which 622 sq. m. represent water surface. It ranks twenty-third in size among the states of the Union.

Relief. Illinois occupies the central portion of the low plateau which forms the upper part of the Mississippi Basin. The greater part of the state lies wholly in the Prairie Plains region, but the northeastern corner belongs in what is

known as the Great Lakes district. The southern point touches the Coastal Plain Province at its northward extension, known as the Mississippi Embayment. The surface as a whole is an inclined plain, sloping gently south and southwest and having an average elevation of about 600 ft. above sea level. The highest point in the state, Wadham (1,023 ft.), on the Wisconsin border, is one of a chain of hills that crosses the northern part of the state from McHenry County on the east to the Mississippi River on the west. The northwestern corner of the state is broken and uneven in surface. Along some of the principal rivers bluffs rise to a considerable height, and there are a number of deep valleys formed by stream erosion. A height of land runs from north-northwest to south-southeast, crossing the Rock River at Grand Detour and the Illinois at Split Rock. A slight elevation runs along the Mississippi from the mouth of the Illinois River to Grand Tower in Jackson County; and from Grand Tower another and more marked elevation, having altitudes of 850 ft. and more, runs eastward across the state to Shawneetown in Gallatin County, on the Wabash River. The region south of this elevation lies approximately 265 ft. above the Gulf of Mexico. The country here was originally covered with forest, but north of the ridge there was little timber save along the stream courses.

Drainage. Through the Mississippi and its numerous branches the waters of Illinois are carried to the Gulf of Mexico. Three-quarters of the drainage of the state flows directly into the Mississippi, while the other quarter is carried to the Mississippi through the Ohio and its tributaries. The rivers that cross or touch the state are navigable for over 400 m., while by way of the Great Lakes Chicago has also a water highway to the Atlantic. The principal river of the state is the Illinois, formed by the union of the Des Plaines and the Kankakee Rivers, about 45 m. southwest of Lake Michigan. The course of the Illinois through the state is nearly 500 m., and it drains an area of more than 25,000 sq. miles. At some points, notably at Lake Peoria, it broadens into wide expanses resembling lakes. Besides its natural water supply, the Illinois River receives, through the Illinois and Michigan and the Chicago Drainage Canal, a supply of water from Lake Michigan. North of the Illinois River the principal stream is the Rock River (about 325 m. long, but navigable to a very limited extent because of the rapids which obstruct its course) which rises in southern Wisconsin, flows across Illinois, and enters the Mississippi River three miles below Rock Island. South of the Illinois, the Kaskaskia River (about 300 m. long and navigable to Vandalia) enters the Mississippi at Chester. The Wabash River forms the eastern boundary of the state from Clarke County to Gallatin County, where it enters the Ohio. Its principal branches in Illinois are the Embarrass River and the Little Wabash. Besides the Wabash, the principal

streams flowing directly into the Ohio are the Saline and the Cache. In the marshy region of northeast Illinois are several shallow lakes which are frequented by sportsmen and fowlers.

Climate. Illinois extends through $51\frac{1}{2}$ degrees of latitude, the northern limit of the state having nearly the latitude of Marblehead, Massachusetts, and the southern being nearly as far south as Norfolk, Virginia. The mean annual temperature in Cairo is 58° F., and it decreases to the northward at the rate of about two degrees for every degree of latitude, being 52° at Springfield, and 47° at Winnebago near the northern border. The extremes of temperature have a wide range from -25° to 105° F. and more. The mean annual rainfall for the whole state is about 38 inches. The mean annual snowfall increases from 12 in. at the southern extremity to nearly 40 in. in the northern counties. Notwithstanding its extremes of temperature, Illinois is one of the healthiest states in the Union. In the southern part of the state the prevailing winds are southerly during the greater part of the year; throughout the northern half they are from west to northwest, except along the shores of Lake Michigan, where they are from northeast to southwest.

Agriculture. The fertile soil—heavy black loam—and a favorable climate make Illinois one of the richest agricultural states in the Union. A large proportion of the land area is topographically suited to the best forms of agricultural occupation, and a diversified and profitable



agriculture is possible. The general character of Illinois agriculture is indicated by the fact that about four-fifths (79.9 per cent) of the total value of crops is contributed by the cereals and about one-tenth (10.9 per cent) by hay and forage; the remainder, representing in value about 9 per cent of the total, consists mostly of potatoes and other vegetables, flowers and plants and nursery products, fruits and nuts, and forest products. The leading crops (in the order of their importance as judged by value) are: corn, oats, hay and forage, wheat, potatoes, and broom corn. The live stock interests of the state are extensive, and it ranks among the first in the breeding of cattle, hogs, and horses. Dairying interests are also important. The production of small fruits and orchard fruits is widely distributed throughout the state.

Forests. The original forest area of the state was almost wholly in the southern counties, and nearly all the trees which the northern half of the state had before the coming of the whites were along the banks of streams; the area of woodland has, however, been considerably extended by tree planting.

Fisheries. The fisheries of the state center chiefly at Chicago. Lake Michigan produces wall-eyed pike, several kinds of bass, salmon-trout, whitefish, carp, lake-herring, sturgeon, etc. The Mississippi and its tributaries yield wall-eyed pike, white perch, sturgeon, and other species, many of them utilized as food fishes.

Minerals. The great central coal field of North America extends into Illinois from Indiana. It covers the greater part of the state from the northern boundary of Grundy County southward, and enters Kentucky, thus including more than three-quarters of the land surface of the state. Coal is produced in fifty counties, and in some years the value of the state's production of coal has been exceeded only by that of Pennsylvania. The petroleum-producing area of commercial importance is in the southeastern part of the state, centering in and about Crawford County. Illinois is one of the three great petroleum producing states. In connection with petroleum, the yield of natural gas is considerable. Zinc, fluorspar, sandstone, limestone, glass sand, natural rock cement, and clay products are other minerals of commercial importance.

Manufactures. Illinois is the most important manufacturing state west of the Alleghanies. The growth of manufacturing industries during the latter half of the 19th Century was due largely to the development of wonderful transportation facilities. The most important industry is the wholesale slaughtering and packing of meats, which yields about 25 per cent of the total manufactured product of the state. Secondary enterprises that have developed from this industry provide for the utilization of nearly all portions of slaughtered animals. Other industries (in the order of value of products) are: the manufacture of foundry and machine-shop products, men's clothing, printing and publish-

ing, iron and steel products, agricultural implements, distilled liquors, flour-mill and grist-mill products, and lumber and timber products. Iron, for products depending upon iron and steel as a raw material, is brought from the Lake Superior region.

Education. The state provides a thorough and efficient system of free public schools under the supervision of the state superintendent of education. School attendance during the full term is compulsory for children from seven to fourteen years of age. The average school year is 153 days. For higher education the state supports five normal schools and the University of Illinois which is situated in the cities of Champaign and Urbana. Associated with the University are the State Laboratory of Natural History, the State Water Survey, the State Geological Survey, the State Entomologist's office, and Agricultural and Engineering Experiment Stations. The schools of medicine, dentistry, and pharmacy are in Chicago. There are more than forty other universities and colleges in the state, the most important being the University of Chicago; Northwestern University (Methodist Episcopal), at Evanston; the Illinois Wesleyan University (Methodist Episcopal), at Bloomington; Knox College (non-sectarian), at Galesburg; Loyola University (Roman Catholic), at Chicago; Illinois College, at Jacksonville; and Lake Forest College (Presbyterian), at Lake Forest.

Government. Illinois is governed under the constitution adopted in 1870 and its subsequent amendments. Qualified electors are all male citizens of the United States twenty-one years of age and over who have resided in the state for one year, in the county for ninety days, and in the election precinct for thirty days next preceding the election. In 1913, the state legislature extended to women all franchise rights within its power to bestow, namely, for all offices not created by the state constitution. Any person convicted of bribery, felony, or infamous crime is disfranchised. **EXECUTIVE.** The executive officials of Illinois hold office for four years, with the exception of the treasurer, whose term of office is two years. The governor must be at least thirty years of age and he must also have been a citizen of the United States and of Illinois for the five years preceding his election. His veto may be overridden by a two-thirds vote of all the members elected to the legislature. Other state officials are the lieutenant-governor, secretary of state, auditor, attorney-general, adjutant-general, superintendent of public instruction, and superintendent of insurance. **LEGISLATIVE.** The state legislature, or General Assembly, consists of a Senate and House of Representatives; sessions, which are unlimited as to length of term, are held biennially (odd number years) at Springfield. The state is divided into fifty-one senatorial districts, from each of which one senator and three representatives are elected. The term of senators is

four years and that of representatives two years. Candidates for senator must be at least twenty-five years of age, those for representative twenty-one; other requisites for membership in the General Assembly are citizenship in the United States, and residence in Illinois for five years, two of which must have been just preceding a candidate's election. Before entering upon the duties of his office each member of the legislature must take a prescribed oath that he has "neither given nor promised to give anything to influence voters at the election, and that he will not accept, directly nor indirectly, money or other valuable thing from any corporation, company, or person for his vote or influence upon proposed legislation." **JUDICIARY.** The judiciary consists of a supreme court of seven members elected for a term of nine years; four appellate courts with fifteen judges, appointed by the Supreme Court; and a circuit court with sixty-five judges, elected from eighteen judicial districts for terms of six years. In Cook County a criminal court and a supreme court of Cook County (originally the supreme court of Chicago) supplements the work of the circuit court. There are also county courts consisting of one judge who serves for four years. Probate courts have been established in some counties, and in counties of more than 500,000 population are juvenile courts for the trial and care of delinquent children. **LOCAL GOVERNMENT.** The local government of Illinois includes both county and township systems. In those counties of Illinois which were settled by immigrants from the southern states a county system of government was long in force, but the increase of population from the New England and Middle States

introduced the township form of government in the northern counties. At the present time both systems exist in most of the middle and southern counties. A number of cities have adopted the commission form of government, which is authorized by law. Aside from the county judiciary, the county officers include the prosecuting-attorney, sheriff, coroner, clerk of court, county clerk, register of deeds, county treasurer, county surveyor, superintendent of schools, and a superintendent of the poor.

History. The first Europeans to explore the country were French traders and missionaries. In 1675 Father Marquette founded a mission at the Indian town of Kaskaskia, near the present Utica. In 1679 La Salle built in the neighborhood of Lake Peoria a fort, which he called Crevecoeur. After 1682 the French made a number of permanent settlements, which had their origins either in the missions of the Jesuits or the bartering posts of the traders. By the Treaty of Paris of 1763 France ceded to Great Britain her claims to the country between the Ohio and Mississippi Rivers. Owing to Indian resistance the English were not able to take possession until 1765. The Northwest Territory, of which Illinois was a part, was secured to the United States by the Treaty of Paris of 1783. Illinois was a part of Indiana Territory in 1800; was made a separate territory in 1809; and was admitted to the Union as a state in 1818. Black Hawk's War occurred in 1832, and the Mormon troubles culminated in 1844. Slavery existed in the state until 1848. Illinois bore a notable part in the Civil War, contributing 259,000 men to the Union Army, of whom nearly 30,000 were killed in action or died of wounds.

INDIANA

INDIANA, one of the East North-Central States of the American Union, lies between latitudes 37° 45' and 41° 46' N., and longitudes 84° 40' and 87° 34' W. It is bounded on the N. by Lake Michigan and Michigan, on the E. by Ohio and Kentucky, on the S. by Kentucky, and on the W. by Illinois. The state has an extreme length from north to south of 276 m., and an average width of 140 miles. In area (36,354 sq. m., of which 309 sq. m. are water surface), it ranks thirty-seventh among the states of the Union.

Relief. The state of Indiana lies within the eastern portion of the low plateau which constitutes the northern section of the Mississippi Basin. The greater part of its surface is undulating prairie land, with a slight slope to the west and southwest. The mean elevation of the state is estimated at 700 ft. above sea level. The highest lands are slightly above 1,000 ft., and are found along the Ohio boundary line in east-central Indiana and near the Michigan line in extreme northeastern Indiana. Through the central portion of the state the surface attains an elevation of 700 to 800 feet. Hills increase in frequency from the center of the state to the

south and southeast, and along the Ohio picturesque and rocky hills known as "Knobs," 200-500 ft. high, are almost continuous, with deep gorges and river bottoms between. This southern border of hills is the edge of the Cumberland Plateau physiographic province of the eastern United States. The lowest elevations within the state are found in the western and southwestern counties along the Wabash River, where the surface seldom rises to an altitude of 500 ft. above sea level. In the limestone region of the south there are numerous caves, the most noted being Wyandotte Cave in Crawford County, next to Mammoth Cave the largest in the United States. In the south-central part of the state there are a number of medicinal mineral springs of which the best known are those at West Baden and at French Lick.

Drainage. The principal streams of the state flow in a general southwesterly direction, and the greater part of the state is drained into the Ohio through the Wabash River, and its tributaries. The Wabash, with a total length of more than 500 m., rises in western Ohio, crosses Indiana in a west-southwesterly direction, and



forms for a considerable distance the boundary between Indiana and Illinois. During the seasons of high water it is navigable by river steamboats for about 350 m. of its course. Its upper tributaries are the Salamanie, Mississinewa, Wild Cat Creek, Tippecanoe, and White Rivers. Of these tributaries the White River is by far the most important. Other portions of the state are drained by the Kankakee, a tributary of the Illinois River; the St. Joseph, which flows through the southwest corner of Michigan into Lake Michigan; the St. Mary's and another St. Joseph, which unite in Allen County to form the Maumee, which empties into Lake Erie; and the White Water, which drains a limited area in the southeastern section of the state into the Ohio. All the larger streams within the state are bordered by low alluvial bottoms and by river terraces formed at higher levels.

Climate. The climate of Indiana is generally equable, the mean annual temperature being about 52° F., ranging from 49° in the north to 54° in the south. The mean monthly temperature varies from 25° in December and January to 79° in July and August. Cold winds from the region of the Great Lakes frequently cause a fall in temperature to an extreme of -25° in the north and north-central parts of the state. The mean annual rainfall for the entire state is about 43 in., varying from 36 in. in the north to 46 in. in the Ohio Valley.

Agriculture. The soil in the greater part of the state is exceedingly fertile. The north

and north-central portions of the state, formerly rather swampy, are now as productive as the south-central portion. The most fertile part of the state is the Wabash Valley, and the least fertile the sandy region immediately south of Lake Michigan. Agriculture is the chief industry of the state of Indiana. Of the state's total land area 92.3 per cent is in farms, and in only two counties does the percentage fall below 80. The leading crops of the state (in the order of their importance as judged by value) are: corn, wheat, hay and forage, oats, potatoes, and tobacco. By far the most important crop is corn, the value reported for this cereal being nearly three times as great as that of wheat, nearly four times as great as that of hay and forage, and over five times as great as that reported for oats. There are no well defined crop belts, the production of the various crops being general throughout the state, except in the case of potatoes, most of which are raised in the sandy regions of the north. The value of orchard products is large and steadily increasing. Stock-raising is extensively carried on, and dairying and poultry-raising are industries of growing importance.

Minerals. The gas field of Indiana extends over Hancock, Henry, Hamilton, Tipton, Madison, Grand, and Delaware Counties. The petroleum field of the state extends over Adams, Wells, Jay, Blackford, and Grand Counties. The coal fields cover an area of 7,000 sq. miles. They lie in the west and southwest, chiefly in Clay, Vigo, Sullivan, Vermilion, and Greene Counties. The quarries and clay beds are of great value, and are widely distributed throughout the state. Marls adapted to the manufacture of Portland cement are found along the Ohio River and in the lake region in the north.

Manufactures. In 1849 Indiana ranked fourteenth among the states of the Union in the value of its manufactures, while in 1909 it ranked ninth in the same respect. The growth of the state's industries was due largely to its natural resources, consisting of an abundant supply of timber, important agricultural products, and a large yield of petroleum and natural gas. During the past decade the supply of timber, petroleum, and natural gas has fallen off greatly, and some of the productive activities dependent upon these materials show less advance than in previous years. The manufactures of the state as a whole, however, have continued to flourish, lumber having been secured from outside sources to supplement the local supply, while the increasing amount of coal mined in the state has compensated largely for the smaller supply of natural gas, and has stimulated manufacturing in other lines. The most important industries (in the order of value of products) are: slaughtering and meat packing, flour-mill and grist-mill products, foundry and machine-shop products, iron and steel products, distilled liquors, automobiles, lumber

and timber products, carriages and wagons, furniture, and refrigerators.

Education. Indiana has a thoroughly organized free public school system under which the supreme administrative control is vested in a state superintendent, elected biennially, and a state board of education; county superintendents, county boards, and township trustees are also elected. In addition to the elementary, graded and high schools, the state makes provision for a state normal school at Terre Haute. There are normal schools at Valparaiso, Angola, Marion, and Danville, and a Teachers College at Indianapolis, which are on the state's "accredited list" and belong to the normal school system. Teachers' institutes are regularly held. The state has established vocational schools and departments, and provides for the presence on the state board of education of three vocational experts. Any city of the first class may establish and maintain a trade school. Night schools are authorized in cities of 3,000 or more. In cities of more than 100,000 schools may arrange with art associations, museums, etc., for art education. All children (including the deaf and blind) are compelled to attend school between the ages of seven and fourteen. Among the institutions for higher education are Indiana University (state), at Bloomington; Purdue University (under state control), at Lafayette; Vincennes University (non-sectarian), at Vincennes; De Pauw University (Methodist Episcopal), at Greencastle; Notre Dame University (Roman Catholic), at South Bend; Earlham College (Friends), at Earlham; Wabash College (non-sectarian), at Crawfordsville; Concordia College (Lutheran), at Fort Wayne; Butler College (Christian), at Indianapolis; Hanover College (Presbyterian), at Hanover; Franklin College (Baptist), at Franklin; and Rose Polytechnic Institute (non-sectarian), at Terre Haute.

Government. Indiana is governed under the constitution adopted in 1852, and its amendments. Entitled to the suffrage are all male citizens twenty-one years of age and upward who have lived in Indiana for six months immediately preceding the election; and all foreign-born males of the requisite age who have lived in the United States for one year and in Indiana for six months immediately preceding the election, and who have declared their intention of becoming citizens of the United States. The general assembly has the power to deprive of the suffrage any person convicted of an infamous crime. **EXECUTIVE.** The executive officers include the governor and lieutenant-governor, clerk of the supreme court, secretary of state, attorney-general, auditor, treasurer, superintendent of public instruction, a state commissioner of weights and measures, and a state food and drug commissioner. The governor and lieutenant-governor (who must be at least thirty years of age), as well as the clerk of the supreme court, are chosen in presidential years for a term of four years. The other state officers are elected

every two years. **LEGISLATIVE.** The state legislature, known as the General Assembly, meets at Indianapolis biennially, (odd number years), its session being limited to 61 days. It consists of a Senate (members of which must be at least twenty-five years of age), and a House of Representatives (members of which must be at least twenty-one years of age), who are elected for terms of two years. **JUDICIARY.** The judiciary consists of a supreme court of five members elected for districts by the state at large for a term of six years, an appellate court, and a system of circuit and minor criminal and county courts. **LOCAL GOVERNMENT.** There is a legislative body in every township and county of the state. All cities are divided into five classes according to population, the powers being concentrated and simplified by degrees in the case of the smaller cities, and attaining a maximum of separation and completeness in class 1, *i. e.*, cities of 100,000 and over, which includes only Indianapolis. In all classes the executive officer is a mayor elected for four years and ineligible to succeed himself. There are six administrative departments (in the smaller cities several departments may be combined under one head)—departments of public works, public safety, public health and charities, law, finance, and collection and assessment. There is a city court with elected judge or judges, and an elected common council which can pass legislation over the mayor's veto by a two-thirds vote. Communities under 2,500 in population are regarded as towns and have a separate form of government by a board of trustees.

History. Extensive remains (in the form of mounds and fortifications) of the prehistoric inhabitants of Indiana are found in several parts of the state, but are especially numerous in Knox and Sullivan Counties. The first Europeans to enter the state found it occupied chiefly by the tribes of the Miami Confederacy, a league of Algonquin Indians formed to oppose the advance of the Iroquois. French *couvreurs des bois* and Jesuit missionaries were probably the first white men to visit the state. La Salle, the explorer, undoubtedly passed through parts of Indiana during his journeys of 1669 and the succeeding years. Vincennes, founded in 1731, was the first permanent white settlement. No other settlement was made until after the War of Independence. Indiana was a part of the Northwest Territory which passed under the control of the United States in 1779, and an American settlement was made at Clarksville in 1784. As a part of the Northwest Territory, it was governed under the Ordinance of 1787. Indiana assumed its present limits in 1809, when it was organized as a territory. Indian wars were frequent throughout the early days of its history. In 1810 began the last great Indian war in Indiana, which ended in November, 1811, with the battle of Tippecanoe (the present Battle Ground), when General William Henry Harrison

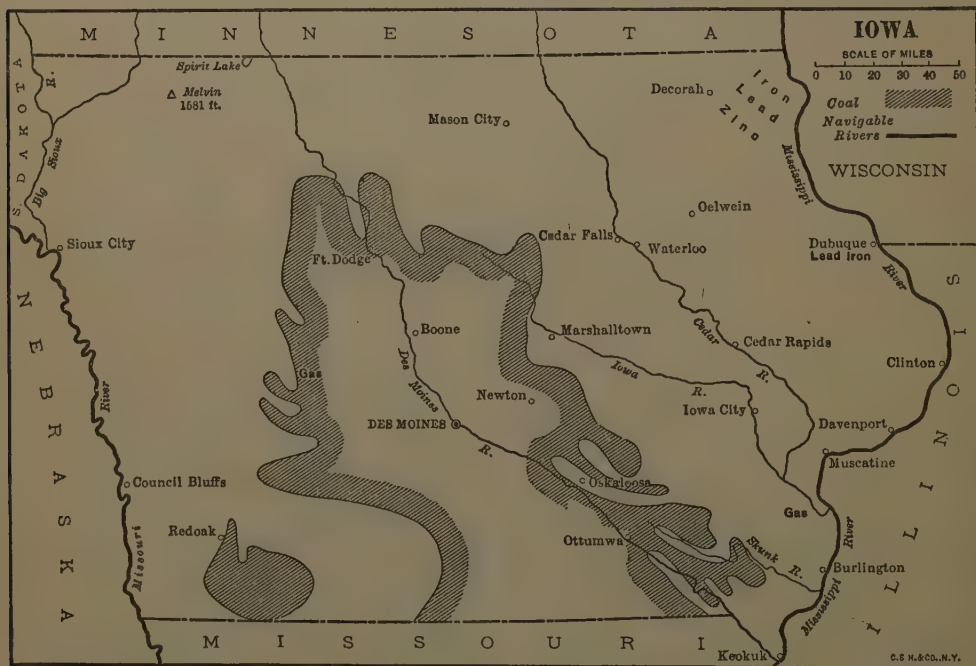
defeated the confederated Indians under Tecumseh. After the close of the War of 1812, the population of the territory increased rapidly and it was admitted to statehood in December,

1816. Slavery existed to a limited extent until 1830. During the Civil War Indiana bore a prominent and creditable part on the side of the Union.

IOWA

IOWA, a West North-Central State of the United States, is situated between latitudes $40^{\circ} 36'$ and $43^{\circ} 30' N.$, and longitudes $90^{\circ} 10'$ and $96^{\circ} 37' W.$ The state is bounded on the N. by North Dakota and Minnesota; on the E. by Wisconsin and Illinois, from which states it is separated by the Mississippi River; on the S. by Missouri; and on the W. by Nebraska and South Dakota. Iowa has a gross area of 56,147 sq. m., of which 561 sq. m. represent water surface. It ranks twenty-fourth in size among the states of the Union.

Sioux and the Missouri. The average elevation of the state is about 900 ft. above sea level. Keokuk in the extreme southeast, the lowest point in the state, is 450 ft. above the sea, while in the northwest, in O'Brien and Dickinson Counties, are elevations ranging from 1,000 to over 1,600 ft. above the sea. In the southern half of the state there are no marked hills, and the undulations are long and wave-like. The surface in the northern half is more broken and irregular, the elevations are generally rounded, and there are numerous depressions occupied by



Relief. The entire state of Iowa lies within the northern portion of the low plateau which constitutes the upper part of the Mississippi drainage basin. A broad, elevated belt, which forms the main water parting of the state, extends from Spirit Lake on the northern border, due south, to within 60 m. of the southern border, and thence southeast to Wayne county in the south-central part of the state. For the most part, the surface is that of a prairie tableland, moderately rolling, and with a general but almost imperceptible slope from the crest of the water parting southeast to the Mississippi, and on the west of the water parting to the Big

small shallow lakes or ponds. In the northeastern part of the state, in what is known as the "driftless area," the surface is much more varied, elevations are more marked, and the rivers in many places flow between high cliffs from 250-400 ft. above their surface. The largest streams have many tributaries and follow circuitous courses. This part of Iowa is a region of great charm, with much picturesque scenery. Along the Missouri and some of its tributaries, southward from the mouth of the Big Sioux River, are mound-like bluffs which rise abruptly from the flood plain of the Mississippi to a height varying from 100-300 feet.

Drainage. The eastern two-thirds of the state is drained wholly by tributaries of the Mississippi, of which the Des Moines, the Skunk, the Iowa with its tributary the Cedar, and the Wapsipinicon are the largest. These streams have long easy courses through valleys broad at their sources, but becoming narrower and deeper towards their mouths. The rivers of the western slope of Iowa are short streams flowing quite rapidly over muddy beds through much of their courses, and in the bluff belt along the Missouri having steep but grassy banks 200 ft. or more in height. The Big Sioux, which rises in South Dakota, in the lower part of its course forms the boundary between South Dakota and Iowa and enters the Missouri River about 2 m. above Sioux City. A few of the rivers of Iowa have a limited importance as navigable streams, and many of them afford water power at their falls. The principal lakes are found in the northern part of the state, among them being Spirit Lake, Lake Okoboji, Clear, Swan, High, Butler, and Storm Lakes. Several of the lakes, known as the Walled Lakes, are remarkable because surrounded by natural walls of loose stones.

Climate. The climate is continental, with cold winters, hot summers, and sudden changes of temperature. The mean annual temperature is about 47° F.; the greatest extremes recorded are from -43° in 1888 to 113° in 1901, a difference of 156° F. The average mean annual temperature in the northeastern corner of the state is 44.3°, while at Keokuk in the southeastern corner it is about 52° F. The autumns are beautiful and of long duration, and Iowa is noted for its healthfulness. The prevailing wind of winter is northwest, that of summer is frequently southeast. The mean annual precipitation is about 32 in., the principal rainfall being during the six months from the 1st of April to the 1st of October. The precipitation is in general less in the western part of the state than in the eastern.

Agriculture. The soils are mainly dark brown to almost black clay loams, silt loams, and loams, with a small amount of sandy loams in scattered areas. With few exceptions these soils are deep, fertile, and well supplied with organic matter. The depth and the porous nature of the soil make it capable of withstanding the extremes of wet and dry remarkably well, and taken as a whole, no other state in the Union is more favored for agricultural exploitation. No other state has so many acres of improved land or so large a proportion of its land subject to cultivation. All of the staple crops of northern climates may be grown within the state. It is also well adapted to the raising of hogs, horses, dairy cows, and poultry. The leading crops of the state (in the order of importance as judged by value) are: corn, hay and forage, oats, wheat, potatoes, barley, and timothy-seed. Orchard fruits and small fruits are grown successfully.

Forests. At the time of its first settlement about one-fifth of the area of Iowa was covered by forest, but everywhere now most of the merchantable timber has been cut. The former forests of the state were of two general classes: on the bottom lands along the rivers grew cottonwood, willow, honey-locust, coffee-trees, black ash, and elm; on the less heavily wooded belts were hemlock, white and green ash, butternut, iron-wood, and holly berry. The growth was heavier in the east than in the west.

Minerals. By far the most valuable mineral product of the state is bituminous coal, the productive coal fields having an area of about 10,000 sq. miles. Lead and iron are found in small quantities; gypsum and ochre are worked; and mineral waters are sold. Sandstone and limestone are produced, as are also clays for the making of bricks, tiles, and pottery.

Manufactures. Iowa is preëminently an agricultural state, and its manufactures are chiefly those that have to do with the products of the farm. Meat packing is the most important industry, and next in importance is the manufacture of dairy products—butter, cheese, and condensed milk. The industries connected with foundry and machine-shops occupy a third place—turning out gas machines and meters, hardware, plumbers' supplies, steam fittings, heating apparatus, and structural iron work. The manufacture of flour- and grist-mill products is fourth in importance. Among the minor manufactures are those of lumber and timber products, most of the raw material being floated down on rafts from Wisconsin and Minnesota; and the printing and publishing of newspapers, books, music, and periodicals.

Education. Iowa has a lower percentage in illiteracy than any other state in the Union, a fact which is largely owing to her excellent public school system. School attendance is compulsory for sixteen consecutive weeks annually, during the ages from seven to fourteen. The public school system includes elementary, graded, and high schools; normal schools for the training of teachers; and the State University at Iowa City. At the head of the whole system is the state superintendent of public instruction, assisted by a board of educational examiners. County administration of schools is in the hands of a board of education and a superintendent. In each school district matters are attended to chiefly by an elected board of directors. Educational institutions not supported by the state include: Iowa Wesleyan University (Methodist), at Mt. Pleasant; Iowa College (Congregationalist), at Grinnell; Central University of Iowa (Baptist) at Pella; Cornell College (Methodist), at Mt. Vernon; Western College (United Brethren), at Toledo; Upper Iowa University (Methodist Episcopal), at Fayette; Leander-Clark College (United Brethren), at Toledo; Lenox College (Presbyterian), at Hopkinton; Luther College (Norwegian Evangelical Luth-

eran), at Decorah; Des Moines College (Baptist), at Des Moines; and many others.

Government. Iowa is governed under the constitution adopted in 1857 and its amendments. Suffrage belongs to all male citizens of the United States of at least twenty-one years of age, who shall have resided in the state for six months, and in some one county for sixty days preceding an election, except idiots and persons insane or convicted of some infamous crime. "Women may vote at all school elections, and in municipal elections upon any proposition to vote appointments or increase tax levies." **EXECUTIVE.** The central executive and administrative authority is vested in a governor, lieutenant-governor, an executive council, auditor, treasurer, attorney-general, a state superintendent of public instruction, and several boards, all elected for two years; also three railroad commissioners, elected for terms of four years. The law requires that the governor and lieutenant-governor shall be at least thirty years of age, and shall have been for two years immediately before their election, residents of the state. The governor is much restricted in his appointing power, and his veto may be overridden by a two-thirds vote of both houses of the legislature. Members of boards of regents or trustees of state institutions are, for the most part, elected by the General Assembly. The few appointments which the governor may make are subject to the recommendation or approval of the executive council, a branch of the legislature, or of some board. The executive council is composed of the governor, secretary of state, state auditor, and state treasurer, all elected by the people for a term of two years. It has extensive powers: supervises and audits the accounts of the state departments, directs the taking of the census, transfers cities from one class to another in accordance with census returns, constitutes the board for canvassing election returns, and classifies and assesses railways and other companies, etc., etc. **LEGISLATIVE.** The state legislature, or General Assembly, composed of a Senate and a House of Representatives, meets at Des Moines biennially (odd number years), its session being unrestricted as to length. Senators are elected for a term of four years, one from each of fifty senatorial districts, the term of one-half expiring every two years. A senator must be at least twenty-five years of age, and a resident of the state for one year at the time of election. Representatives are elected for a term of two years, one from each county, with an additional one from each of the counties (not exceeding nine) having the largest population; the ratio of representation and the apportion-

ment of the additional representatives from the larger counties is fixed by the General Assembly. The qualifications for representatives differ from those of elector only in that they must have been residents in the state for one year at the time of election. **JUDICIARY.** The state judiciary consists of a supreme court of seven judges, elected for a term of six years, and twenty-one district courts having fifty-nine judges (from one to four in each district), elected for terms of four years. **LOCAL GOVERNMENT.** For purposes of administration and local government the state is divided into counties, each of which is itself divided into townships that are usually six miles square. The township may be divided into school districts and highway districts, but in these matters there is irregularity. Each county has its own administrative, boards and officers, and there are two justices of the peace, and two constables for every township. The board of supervisors, elected for a term of three years, has care of the county property and the management of all county business. The officers of the township are three trustees (elected for a term of three years), a clerk and an assessor (elected for two years). Municipal corporations are divided into cities of the first class (population of 15,000 or over), cities of the second class (population of 2-15,000), and towns, besides a few cities with special charters. All other municipal corporations, except cities with special charters, are known as incorporated towns. The municipal officers are a mayor, council, a police judge in cities of the first class, and various other officers. Cities with a population of 25,000 or more may adopt a commission form of government, with a mayor and four councilmen, elected at large on a non-partisan ticket.

History. The first white men to visit Iowa were the Frenchmen, Marquette and Joliet, in 1673, and Hennepin in 1680. They found the country occupied by a tribe of Siouan Indians from which came the name of the state, Iowa (meaning "sleepy ones"). As a part of the Louisiana Purchase of 1803, the territory became the property of the United States. From 1804-'05, as a part of the District of Louisiana, it was under the government of Indiana Territory; from 1805-'12 it was a part of Louisiana Territory; from 1812-'21 a part of Missouri Territory; from 1821-'34, a part of the unorganized territory of the United States; from 1834-'36 a part of Michigan Territory; and from 1836-'38 a part of Wisconsin Territory. In 1838, the western portion of Wisconsin Territory was set apart and named Iowa, and out of this the state with its present bounds was carved in 1846.

KANSAS

KANSAS (the "Sunflower" state), a West North-Central State of the United States, lies between latitudes 37° and 40° N., and longitudes 94° 35' and 102° 1' 40' W. It is bounded

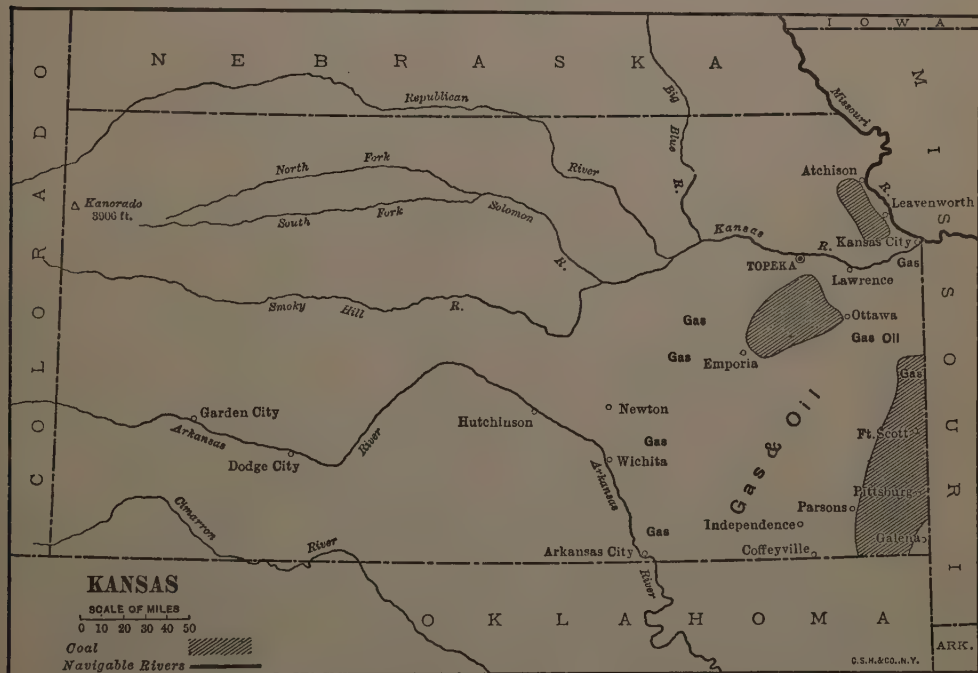
on the N. by Nebraska; on the E. by Missouri; on the S. by Oklahoma; and on the W. by Colorado. The state is nearly rectangular in shape, with a breadth from north to south of about 200

m., and a length from east to west of slightly over 400 miles. In gross area it ranks thirteenth among the states in the Union (82,158 sq. m., of which 384 sq. m. represent water surface).

Relief. Kansas may be regarded as a great undulating plain with a very gentle slope from west to east. Along the western boundary the surface has an elevation of from 3,500 to 4,000 ft., while along the eastern boundary, the average elevation is 850 ft. above sea level. The slope from west to east is thus about $7\frac{1}{2}$ ft. to the mile, and about one-half of the state lies at an elevation of less than 2,000 ft. above sea

boundless as upon the sea. In the northwest the surface is distinctly hilly, and in the southwest, below the Arkansas River, is an area of sand hills.

Drainage. The Missouri River, forming the northeastern boundary, receives the drainage of the northern half of the state, chiefly through the Kansas River. The Kansas is formed by the union of the Solomon and Smoky Hill Rivers, about twelve miles west of Abilene, and enters the Missouri at the eastern boundary within the limits of Kansas City, Kansas. The Kansas, with the Smoky Hill River, traverses the entire state from west to east, among its



level. In the eastern half of the state there is also an inclination from north to south, as indicated by the northwest-southeast course of the streams, the only exception being the Kansas River, which flows nearly due east. The eastern third of the state lies in the Prairie Plains province, the remainder of the state in the Great Plains province. A small portion in the southeastern part of the state is invaded by the low hills of the Ozark uplift. Along the Missouri, in the northeast, the bluffs rise in places to a height of 200 feet. The Prairie Plains, while gently rolling, are diversified by low hills and ridges and the valleys of countless streams. The Great Plains present a vast surface of moderate yet varied relief—an endless succession of broad plains, isolated hills, and ridges. The view from every little eminence is almost as

chief tributaries being the Republican and Big Blue Rivers. The Arkansas traverses the great treeless plains of western Kansas, and near the middle of the state changes its course to the southeast and crosses the southern boundary into Oklahoma. Of its large affluents, the Cimarron drains the southwestern corner of the state, and the Neosho the southeastern part. A number of smaller streams of the state afford advantages for the development of water power.

Climate. The climate is subject to extremes of heat and cold, but as a rule is exceptionally salubrious. The average annual temperature of the state is about 54.5° F., the warmest mean being 56° and the coldest 53° F. The winters are dry and mild, and summer heat is tempered by perpetual prairie breezes. In the eastern half of Kansas the rainfall is sufficient for the

maturing of crops, the normal annual precipitation ranging from 25 to 35 inches; in the western half of the state the rainfall is lighter, the average annual precipitation ranging from 15 to 25 inches. The precipitation is very largely in the growing season between April and October. Freshets and droughts and occasional tornadoes at times work havoc. Winds are prevalently from the south, except in winter, when they blow from the northwest.

Agriculture. The soil of the Upland Prairies is generally a deep, rich, clay loam; the bottom lands near the streams are a black, sandy loam; and the intermediate lands show a rich and deep black loam containing very little sand. These soils are all free from stones, easily cultivated, and exceedingly productive. In limited areas on the Upland Prairies are stiff, clay soils, which, while not easily cultivated, are very productive when properly managed and enriched. The southwestern portion of the state is sandy. Irrigation is practised in the stream valleys of the western part of the state, principally along the Arkansas River for 75 m. east from the Colorado line. Of the state's entire land area, nearly 83 per cent is in farms. In both acreage and value, corn is the leading crop. Wheat has an acreage about three-quarters as great as that of corn, and a value nearly as great. These two crops combined represent about 90 per cent of the acreage of all cereals. The other important agricultural crops (in the order of their value) are: hay and forage, oats, potatoes, Kafir corn, and milo maize. Cotton-growing, on a very limited scale, is being attempted in the southeast. Various orchard fruits are cultivated. Kansas is one of the leading stock-raising states of the country, and it has extensive dairying and poultry interests.

Forests. The original timber land did not cover more than 5 per cent of the state's area, but a judicious system of planting has considerably increased the extent of woodland. Along the streams there is commonly a fringe of timber, which in the east is fairly heavy, but there is an increasing scarcity westward. Many of the cities of the state are abundantly and beautifully shaded. Oaks, elms, hickory, honeylocust, white ash, sycamore, and willows are growing, but the box-elder and cotton-wood are the prevailing trees. The United States government is planting trees in reserves in the arid counties of the state, and the experiment promises success. A National Forest of over 300,000 acres has been set aside in Finney, Kearney, Hamilton, and Grant Counties.

Minerals. The mineral products of Kansas include bituminous coal, petroleum, natural gas, salt, zinc, lead, and sandstone, limestone, and gypsum. The coal fields cover about 15,000 sq. m. in the eastern part of the state. In the value of the natural gas product, Kansas is surpassed only by Pennsylvania, West Virginia, and Ohio. The principal gas and oil fields are in the southeastern part of the state.

Manufactures. Kansas is not preëminently a manufacturing state. Its manufactures have been largely the outgrowth of its extensive agricultural resources, and in recent years they have been greatly stimulated by the development of rich zinc and coal mines, and by the discovery of oil and gas. The most important industry in the state is slaughtering and meat packing; it includes the manufacturing of many by-products, some of which are carried to a high degree of elaboration. Second in importance are flour-milling and grist-milling. Next in order are general shop construction and the manufacture of cars by steam railroad companies, smelting and refining, and printing and publishing.

Education. An efficient compulsory education law was passed in 1903. The public schools of the state are administered by a state board of education. Seven months is the minimum term for rural schools, and eight for schools in cities of the first and second class. Besides the elementary and high schools, the state maintains three public normal schools; the University of Kansas, at Lawrence; an Agricultural College, at Manhattan; the Western University (for negroes), at Quindaro; and the Topeka Industrial and Educational Institute (also for negroes). In addition to the state schools numerous private or denominational institutions are maintained. The most important of these are: the Kansas-Wesleyan University (Methodist Episcopal), at Salina; Baker University (Methodist Episcopal), at Baldwin; Washburn College (Congregational), at Topeka; Southwest Kansas College (Methodist Episcopal), at Winfield; the College of Emporia (Presbyterian), at Emporia; Bethany College (Lutheran), at Lindsborg; St. Marys College (Roman Catholic), at St. Marys; Ottawa University (Baptist), at Ottawa; and the College of the Sisters of Bethany (Protestant Episcopal, for women), at Topeka. An industrial school for Indian children is maintained by the United States near Lawrence.

Government. Kansas is governed under the constitution (adopted in 1859) which came into operation in 1861, and its amendments. Suffrage is the right of both male and female citizens of the United States (and of aliens who declare their intention to become such) who have lived in the state for six months, in the county for thirty days, and in the precinct for ten days previous to election. Excluded from the suffrage are those convicted of treason or felony, insane persons, and persons under guardianship; also public embezzlers, persons guilty of bribery, or dishonorably discharged soldiers of the United States service, unless reinstated. General elections to state, county, and township offices are biennial in even number years, and take place on the first Tuesday after the first Monday in November. EXECUTIVE. The state executive officers are a governor, lieutenant-governor, secretary of state, auditor, treasurer, attorney, and superintendent of public

instruction, all elected for a term of two years. The governor appoints, with the approval of the Senate, a board of public works, and some other administrative boards. He may veto any act of the legislature, which cannot thereafter become a law unless again approved by two-thirds of the members elected to each house. **LEGISLATIVE.** The legislature, consisting of a Senate and House of Representatives, meets in regular session at Topeka, on the second Tuesday in January in odd number years; its sessions are not restricted as to length. Senators are elected for four years, and representatives for two years. **JUDICIARY.** Judicial power is vested in a supreme court, thirty-eight district courts, one probate court for each county, and two or more justices of the peace for each township. All justices are elected: those of the supreme court, seven in number, for four years; and those of the probate courts, and the justices of the peace, for two years. **LOCAL GOVERNMENT.** The business of each county is managed by a board of commissioners who are elected by districts for four years, but each county elects also a clerk, a treasurer, a probate judge, a register of deeds, a sheriff, a coroner, an attorney, a clerk of the district court, a surveyor, a county auditor appointed by the district clerk of the county. The township officers, all elected for two years, are a trustee, a clerk, a treasurer, two or more justices of the peace, two constables, and one road overseer for each road district. Cities are governed

under a general law which divides them into three classes according to size, and the government is different for each class. Cities having a population of more than 15,000 constitute the first class; those having a population of more than 2,000, but not more than 15,000, constitute the second class; and those having a population not exceeding 2,000 constitute the third class. In cities of the first class, the law requires the election of a mayor, city clerk, city treasurer, appeals judge, and councilmen; in those of the second class, it requires the election of a mayor, appeals judge, city treasurer, councilmen, board of education, justices of the peace, and constables; and in those of the third class, it requires the election of mayor, appeals judge, and councilmen.

History. Kansas was a part of the Louisiana purchase (1803), and was colonized by both free and slave state settlers. It was made a territory in 1854, and at once became the battle-ground between the partisans of slavery and freedom. A bloody civil war broke out, in which many fights that were almost battles took place. One of the most ardent of the anti-slavery partisans was John Brown. The Topeka constitution prohibiting slavery was framed in 1855, and the Leecompton constitution sanctioning slavery in 1857. The Wyandotte constitution forbidding slavery was adopted in 1859, and Kansas was admitted as a free state January 29, 1861. It took a prominent part in the Civil War, and suffered much from raids.

KENTUCKY

KENTUCKY, one of the East South-Central States of the Union, lies between latitudes 36° 30' and 39° 12' N., and longitudes 81° 55' and 89° 40' W. It is bounded on the N., NW., and NE. by Illinois, Indiana, and Ohio; on the E. by West Virginia and Virginia; on the SE. and S. by Virginia and Tennessee; and on the W. by Missouri and Illinois. The state has an extreme length from E. to W. of about 400 m., and a width from N. to S. of 175 m. In area, Kentucky ranks thirty-sixth among the states of the Union (40,598 sq. m., of which 417 sq. m. are water surface).

Relief. The surface of Kentucky falls into three main physiographic regions: the mountain belt of the east and southeast; the plateau region extending from the mountain belt to the Tennessee River; and, lying west of that river, a small area which belongs to the Gulf Coastal Plain. The mountain belt, strictly speaking, comprises only the Cumberland and Pine Mountain ranges in the extreme southeastern part of the state. These ranges have altitudes of from 1,000 to 1,500 ft. and more, the highest point being Frazier knob (1,540 ft.), in Letcher County on the Virginia border. With the exception of the narrow mountain area just described, the eastern quarter of the state, co-extensive with the eastern Kentucky coal field,

belongs to the Alleghany Plateau Province. This plateau belt is exceedingly rugged, with many sharp ridges—seldom rising more than 1,500 ft. above the sea—which alternate with deep, narrow valleys. The remainder of the state, which lies east of the Tennessee River, is divided into the Highland Rim Plateau, and a lowland basin eroded in the Highland Rim Plateau and known as the Blue-Grass Region; this region reaches northward to the Ohio River and is separated from the Highland Rim Plateau by a semicircular escarpment, which extends from the mouth of the Scioto River to the mouth of the Salt River below Louisville. The Highland Rim Plateau embraces fully one-half of the state, and slopes from elevations of 1,000 ft. or more in the east to about 500 ft. in the northwest—and generally much less. The Blue-Grass Region is park-like in character, and marked by gently rounded hills and intervening valleys. Its soils are strong and fertile, and the blue-grass (from the color of whose seed-vessels the region takes its name) is native to the soil. The streams have cut deep gorges through the limestone formations of a large part of the Highland Rim Plateau, and in a region of about 6,000 sq. m. much of the drainage is subterranean. The long continued erosive action of the water has undermined a large part of this region and pro-



duced numerous and often extensive caverns, the best known being Mammoth Cave. The lowland region which lies west of the Tennessee River has an average elevation of less than 300 feet. The surface is generally low and level, and large cypress swamps still exist in the southwest.

Drainage. The extent of the navigable waters of Kentucky is placed at about 3,000 miles. Most of the larger rivers of the state have their sources among the Appalachian Mountains or on the Alleghany Plateau, and flow in a generally northwest direction toward the Ohio. Deep river channels are common, but falls or impassable rapids are rare west of the Alleghany Plateau. The principal rivers wholly within the state are: the Licking, Kentucky, Green, and Tradedwater. The Cumberland rises in the Cumberland Mountains in southeastern Kentucky, and after a tortuous, general southwesterly and westerly course to Nashville, Tennessee, turns northwestward and, crossing Kentucky not far from the lower course of the Tennessee, enters the Ohio River at Smithland. The Tennessee River forms part of the eastern boundary of Calloway County, enters the state on the southwestern border of Trigg County, and, flowing in a general northwesterly direction, enters the Ohio River at Paducah.

Climate. Kentucky has a fine, salubrious climate and extremes of temperature are not marked. The mean annual temperature for the entire state is nearly 55° F., that of the mountain belt in the SE. being 50°, and that of the region west of the Tennessee, about 60°; the

thermometer seldom registers as high as 100° or as low as -10° F. The mean annual precipitation is about 43 in. for the entire state; it is usually distributed evenly throughout the year, and very little is in the form of snow. The prevailing winds are from the west or southwest; rain-bearing winds are mostly from the south.

Agriculture. In the extreme eastern portion of the state, on the mountains and on the Alleghany Plateau, much of the soil is very light and thin. The more level tops of the plateau, however, are cultivated and produce fair crops. Within the mountainous portion of southeastern Kentucky there are a number of small limestone valleys of considerable fertility; in the Blue-Grass Region in the north-central portion of the state the soils are strong and fertile, and the most exhaustive crops, such as tobacco and hemp, may be raised continuously for a series of years without materially affecting the value of the soil. The south-central part of the state comprises one of the great tobacco-growing regions of the United States. The total farm acreage and the acreage of improved land are both increasing, as are also the number of farms. The general character of Kentucky agriculture is indicated by the fact that somewhat more than two-fifths (43.7 per cent) of the total value of crops is contributed by the cereals, and somewhat more than one-quarter (28.7 per cent) by tobacco. The remainder, representing 27.6 per cent of the total, consists mostly of potatoes and other vegetables, hay and forage, forest products, and fruits and nuts. The leading crops (in the order of their importance as judged

by value) are: corn, tobacco, hay and forage, wheat, and potatoes. The state ranks first in the production of tobacco, and it is the principal hemp-growing state in the Union. The Blue-Grass Region is one of the most famous horse-breeding sections in America, and the thoroughbred Kentucky horse has a world-wide reputation. Its other live-stock interests are important.

Forests. The state is rich in oak, maple, ash, beech, walnut, and pine, and its lumber industries are extensive. Logging is the principal industry of several localities, especially in the east.

Minerals. Kentucky has two extensive coal fields, an eastern and a western. The eastern coal field lies, for the most part, in Greenup, Boyd, Carter, Lawrence, Johnson, Lee, Breathitt, Rockcastle, Pulaski, Laurel, Knox, Bell, and Whitley Counties, and has an area of about 11,000 square miles; the western coal field is in Henderson, Union, Webster, Daviess, Hancock, McLean, Ohio, Hopkins, Butler, Muhlenburg, and Christian Counties, and has an area of about 6,000 square miles. All Kentucky coal is either bituminous or semi-bituminous, but of several varieties. Kentucky is the largest producer of cannel coal in the United States. Among the other mineral resources of the state are: petroleum, iron ore, lead, barites, lime, natural cement, asphalt, natural gas, and mineral waters. The quarries yield sandstone and limestone, and the clay deposits are valuable for the manufacture of bricks, tile, pottery, etc. Pearls are found in some of the streams of the state, and it is believed that there are diamonds in the kimberlite deposits in Elliot County.

Manufactures. The value of the manufactured products of Kentucky has steadily increased since 1849-50. The most important industries (arranged in the order of value of products) are: distilled liquors, flour-mill and grist-mill products, lumber and timber products, tobacco manufactures, foundry and machine shop products, iron and steel products, and slaughtering and meat-packing.

Education. School attendance is compulsory for children between the ages of seven and twelve years, unless excused by the county board of education on account of illness. The public schools of Kentucky may be classified as rural schools, graded schools, and high schools (the latter being further classified as city and county high schools). Each county is divided into four, six, or eight educational divisions, one trustee being elected for each sub-district. The trustees of the sub-districts form division boards of education, and the chairmen of these various division boards form a county board of education together with the county superintendent who is *ex officio* chairman. Any sub-district, town, or city of the fifth or sixth class may provide for a graded school by voting the necessary taxes to support the same. The General Assembly has provided special graded schools. In each city of the first, second, and third class

there must be, and of the fourth class there may be, maintained under control of a city board of education a system of public schools in which all children between the ages of six and twenty residing in the city may be taught at public expense. It is provided by statute that there shall be in each county of the state at least one county high school to which all common school graduates of the county shall be admitted without charge. There are separate schools for white and blacks. Schools for higher education are: the State University of Kentucky, at Lexington; two State Normal Schools, one at Richmond and the other at Bowling Green; and a Normal and Industrial School (for negroes), at Frankfort. Among the private and denominational colleges in Kentucky are: Central University (Presbyterian), at Danville; Transylvania University, at Lexington; Georgetown College (Baptist), at Georgetown; Kentucky Wesleyan College (Methodist Episcopal, South), at Winchester; Berea College (Non-Sectarian), at Berea; and the University of Louisville, at Louisville.

Government. Kentucky is governed under a constitution adopted in 1891. With the usual exceptions of criminals, idiots, and insane persons, all male citizens of the United States who are at least twenty-one years of age, and have lived in the state one year, in the county six months, and in the voting precinct sixty days next preceding the election, are entitled to vote. Women are allowed to vote for school officers and on school matters, and may hold school offices—except those limited to men by the constitution. **EXECUTIVE.** The executive officers of the state are: governor, lieutenant-governor, treasurer, auditor of public accounts, register of the land office, commissioner of agriculture, labor and statistics, secretary of state, attorney general, and superintendent of public instruction. All are chosen by popular vote for four years, and are ineligible for immediate reelection; each must be at least thirty years of age and must have been a resident citizen of the state for two years next preceding his election. If a vacancy occurs in the office of governor during the first two years, a new election is held; if it occurs during the last two years, the lieutenant-governor serves out the time. The governor may veto any measure, including items in appropriation bills, but the legislature can re-pass such a measure by a simple majority of the total membership in each house. The governor is commander-in-chief of the militia when it is not in the service of the United States. He may remit fines and forfeitures, commute sentences, and grant reprieves and pardons, except in cases of impeachment, and he may call extraordinary sessions of the legislature. **LEGISLATIVE.** The legislative power is vested in a General Assembly, which consists of a Senate and a House of Representatives. It meets biennially at Frankfort (even number years), the session being limited to 60 days. Senators are

elected for four years, half the number retiring every two years. Representatives are elected for two years. The minimum age for representative is twenty-four, and for a senator thirty years. The Senate sits as a court for the trial of impeachment cases. A majority of either house constitutes a quorum; but as regards minor bills on the third reading, not only must they receive a majority of the quorum but that majority must be at least two-fifths of the total membership of the house. For the enactment of appropriation bills creating a debt, a majority of the total membership in each house is required. A revenue measure must originate in the House of Representatives, but the Senate may introduce amendments. **JUDICIARY.** The judiciary consists of a court of appeals, circuit courts, quarterly courts, county courts, justice of the peace courts, police courts, and fiscal courts. The court of appeals is composed of from five to seven judges, elected, one from each appellate district, for a term of eight years. **LOCAL GOVERNMENT.** The counties are grouped into judicial circuits, those containing a population of more than 150,000 constituting separate districts; each district has a judge and commonwealth attorney. The county officials are: judge,

clerk, attorney, sheriff, jailer, coroner, assessor, all elected for four years. Each county contains from three to eight justices of the peace districts. The financial board of the county is composed of the county judge and the justices of the peace, or of the county judge and three commissioners elected on a general ticket. The municipalities are divided into six classes, according to population.

History. Numerous historic remains indicate that the mound-builders lived in the territory now comprising this state. The name Kentucky, meaning "dark and bloody ground," commemorates the conflicts between various warlike tribes of Indians. Kentucky was explored by Dr. Thomas Walker in 1750, by John Finley in 1767 and by Daniel Boone in 1769; was settled at Harrodsburg in 1774; was formed into a county of Virginia in 1776; was admitted into the Union in 1792 (the first state to enter after the formation of the Union); was distinguished in the War of 1812 and in the Mexican War; was one of the slave states, but did not secede during the Civil War; was occupied by Federals and Confederates in 1861; and was the scene of several famous campaigns and raids.

LOUISIANA

LOUISIANA, a West South-Central State of the Union, lies between latitudes 29° and 33° N., and longitudes 89° and 94.5° W. It is bounded on the N. by Arkansas and Mississippi; on the E. by Mississippi and the Gulf of Mexico; on the S. by the Gulf of Mexico; and on the W. by Texas. The state extends from north to south about 200 m., and from east to west about 290 miles. In gross area (48,506 sq. m., of which 3,097 sq. m. are water surface) it ranks as thirtieth among the states of the Union.

Relief. Louisiana lies in the Coastal Plains Province, and is divided nearly equally between alluvial lands and uplands. The mean elevation above sea level is 75 ft., and practically the only parts more than 400 ft. high are hills in Sabine, Claiborne, and Vernon Parishes. The upland region embraces all the northern and northeastern parts of the state. It is in reality a low plateau sloping southward and traversed by the valleys of the Mississippi, Red, and Ouachita Rivers, and dissected by smaller streams into numerous smaller plateaus. South of the Red River is the prairie area constituting the greater part of the southwestern corner of the state. Here the elevation is usually only 20-30 ft. above the sea, never above 70 ft.; and the region is generally treeless, except for marginal timber along the streams. Finally, the prairie region is merged into a belt of wooded swamp and marsh, which extends along the entire gulf coast, reaching inland for distances of from 20 to 50 miles. In places the marsh lands are open, flooded only at high tides or

in rainy seasons, and afford pasturage for cattle. Large tracts have been diked and reclaimed for cotton, sugar, and rice culture. Slight ridges along the streams and bayous which traverse it, and occasional patches of slightly elevated prairie, relieve the monotonous expanse. Most of the swamp fringe is reclaimable. The marshes encroach most upon the parishes St. Charles, Orleans and Plaquemines. The alluvial lands include the river flood plains.

Drainage. The principal rivers are the Mississippi, which forms part of the eastern boundary and flows through the southeastern part of the state; the Red River, the southernmost of the great tributaries of the Mississippi, which it enters in about latitude 31° N.; the Ouachita (or Washita), which empties into the Red River about 15 m. northwest of the confluence of the latter with the Mississippi; the Sabine River, which forms more than two-thirds of the western boundary; and the Pearl, which forms part of the eastern boundary and empties into Mississippi Sound. All these rivers except the last are navigable at all stages of the water. There are many bayous, several of which are important both for navigation and for drainage. Among them are Bayou Teche, Bayou Plaquemine, Atchafalaya Bayou, Bayou Lafourche, and Bayou Boeuf. Some of the bayous might well be called lakes, and others rivers. The southern portion of the state is covered by an intricate network of these bayous, which before they were closed by a levee system carried off in time of flood much of the escaping surplus of river waters. The total length of navigable waters

in the state is about 3,500 miles. Many of the lakes, among them Pontchartrain, Borgne, Maurepas, and Sabine, are parts of the sea which have escaped the filling in process carried on by the great river and the smaller streams. There are countless small inland lakes along the Mississippi and Red Rivers and their tributaries.

Climate. The climate of Louisiana is semi-tropical, and equable throughout the greater part of its area, being influenced materially by the prevailing southerly winds from the Gulf of Mexico. The differences in mean annual temperature are almost wholly due to differences in latitude and elevation. The mean annual temperature ranges from about 70° F. at Port Eads in the extreme southeastern part of the state, to 65° at Lake Providence in the northeastern part. The mean temperature for July varies from 81° to 83°; the mean for January varies from 46° in the extreme north to 56° in the extreme south. The rainfall is usually heavy in the southeast, but decreases toward the northwest. The average for a year at New Orleans is about 58 in., at Shreveport 46 in., and for the entire state it is 55 inches. A light fall of snow occurs sometimes in the northern portions, but in the southern part of the state it is almost unknown.

Agriculture. The soils of the greater part of Louisiana are highly fertile, and a varied and profitable agriculture is possible in all sections of the state. The general character of Louisiana

agriculture is indicated by the fact that somewhat less than one-third (32 per cent) of the total value of crops is contributed by the cereals, somewhat more than one-quarter (26.2 per cent) by cotton, and somewhat less than one-quarter (23 per cent) by sugar crops. The remainder, representing 18.8 per cent of the total, consists mostly of potatoes and other vegetables, of forest products, and of hay and forage. The leading crops (in the order of their importance as judged by value) are: sugar, cotton, corn, rough rice, cottonseed, hay and forage, and sweet potatoes and yams. Many of the fruits of warm-temperate and semi-tropical lands, whether native or exotic, including oranges, olives, figs, grapefruit, kumquats, and pomegranates are cultivated. Oranges are grown on the coast, and along the Mississippi below New Orleans. Orchard fruits are fairly varied, but unimportant; the production of small fruits is comparatively small.

Forests. The value and variety of the timber in the forests of Louisiana are very great. Much of the river swamp region is covered with cypress trees festooned with Spanish moss. The eastern pine belt covers an area of about 3,900 sq. m., and is composed largely of the long-leaf pine; the southwestern pine belt covers an area of about 4,000 sq. m., and contains the heaviest growth of long-leaf pine timber in the world. The short-leaf growth is especially heavy in the northwest portions of the state. The cypress forests of the alluvial and overflow lands in the



south of the state are among the largest and most heavily timbered known. Hard woods are found in the river bottoms throughout the state.

Fisheries. Shrimp, frogs, terrapin, clams, and oysters are common. Oysters are greatly favored by state protective legislation.

Minerals. Mineral resources are few but important. The leading products are salt, sulphur, petroleum, and natural gas. The deposit of rock salt of Petite Anse Island in the coast swamp region is in places 1,000 ft. thick and yields salt of extraordinary purity. The state ranks fifth in the production of salt, and is the largest producer of sulphur in the United States. The Jennings Oil Field is one of the greatest in the United States. Natural gas is found in Caddo parish. Small quantities of iron ore and of brown coal, kaolin, and various clays are among the mineral deposits of the state.

Manufactures. A large proportion of the raw materials used in the manufactures of Louisiana is furnished by the forests of the state and by its sugar-cane, cotton, and rice fields. The difficulty of obtaining a sufficient supply of fuel much retarded the early development of manufactures, but the opening of short canals, the recent improvement of water-ways, and the increased railroad facilities of the state have reduced the cost of transportation of coal as of other commodities. The rapid development of the oil fields of the south has afforded a cheap substitute for coal and given an increased impetus to manufactures in Louisiana. New Orleans, the most important southern port, affords excellent opportunities for domestic coastwise and foreign commerce. The most important industries (arranged in the order of value of products) are: the manufacture of sugar and molasses, and sugar refining; lumber and timber; cottonseed-oil and cake; rice cleaning and polishing; bags, other than paper; and bread and other bakery products.

Education. A new school code (1912) established a state board of education composed of the governor, superintendent of public education, the attorney-general, and one citizen from each congressional district. There are separate schools for white and colored children. According to the state constitution no fund raised for the support of the public schools of the state shall be appropriated to or used for the support of any private or sectarian school. City schools are under a separate organization. There are two state normal schools for the training of teachers, and twenty-eight rural high schools. Higher schools include: the State University and Agricultural and Mechanical College, at Baton Rouge; Tulane University of Louisiana, in New Orleans; Jefferson College (Roman Catholic), at Convent; the College of the Immaculate Conception (Roman Catholic), at New Orleans; St. Charles College (Roman Catholic), at Grand Coteau; Silliman Collegiate Institute (Presbyterian, for women), at Clinton;

Mansfield Female College (Methodist Episcopal, South) at Mansfield; the Southwestern Louisiana Industrial Institute, at Lafayette; and among the schools for negroes are the Peabody State Normal and Industrial School, at Alexandria; and New Orleans University (Methodist Episcopal), Luther College (Evangelical Lutheran), Leeland University (Baptist), Straight University (Congregational), and Southern University (aided by the state), all at New Orleans.

Government. Louisiana is governed under the constitution of 1898 with its amendments. The constitution requires that a voter must (in addition to other qualifications) either be able to show conclusively ability to read and write, or be the owner of property in the state "assessed at not less than \$300, on which, if personalty, all taxes are paid." But it excepts from these requirements persons who were entitled to vote in some state on or before the 1st of January, 1867; also the sons or grandsons of such voters not under twenty-one years of age on the 12th of May, 1898; and males of foreign birth who have resided in the state five years next preceding the date of application for registration, and who were naturalized prior to 1898. The constitution provides that no person, under sixty years of age, shall be permitted to vote unless he has paid an annual poll-tax of one dollar for the two years next preceding the year in which he offers to vote. Convicts not pardoned with an explicit restoration of suffrage privileges are disfranchised. Suffrage is extended to women taxpayers in questions submitted to the taxpayers as such. **EXECUTIVE.** The chief executive officers of the state are the governor, lieutenant-governor, secretary of state, treasurer, etc. They are elected for four year terms, neither the governor nor the treasurer being eligible for immediate reelection. The governor must be at least thirty years old and must have been a citizen of the United States and a resident of the state for ten years next preceding his election. Within five days after the passage of any bill by the General Assembly he may veto this measure, which then becomes a law only if passed by a two-thirds vote of all members elected to each house of the General Assembly. In case of vacancy, the lieutenant-governor succeeds to the office of governor. **LEGISLATIVE.** The legislative body, or the General Assembly, meets at Baton Rouge biennially, on the second Monday in May (even number years), and its sessions are limited to sixty days. Any elector is eligible for election as a representative if he has been a citizen of the state for five years and a resident of the district or parish from which he is elected for two years immediately preceding the election. A change of residence from the district or parish from which he is elected vacates the seat of a representative or a senator. The senator must be at least twenty-five years of age. Members of the legislature are elected for four years. Revenue or appropriation bills originate in the House of

Representatives, but may be amended by the Senate. **JUDICIARY.** The judiciary consists of the supreme court with five judges, elected by the people for a term of twelve years; circuit courts of appeals, the judges of which are appointed by the supreme court; and district courts with four judges, elected by the people. **LOCAL GOVERNMENT.** The term "parish" is used in Louisiana instead of county. It is a relic of the old Spanish regime. The principal parish officers are prosecuting-attorney, sheriff, coroner, county clerk, assessor, treasurer, surveyor, superintendent of schools and health officer.

History. Louisiana was explored by De Soto in 1541, by Marquette in 1677, and by

La Salle in 1682; was settled by the French under Iberville and Bienville about 1700. In 1717 it was granted to a company of which John Law was the head, but in 1732 reverted to the crown; was ceded by France to Spain in 1763, but in 1800 became French territory. It was repurchased by the United States in 1803 and was created the Territory of Orleans in 1804; had the portion east of the Mississippi annexed in 1810; was admitted to the Union in 1812; seceded in January 1861; was largely occupied by the Federals 1862-63; and was readmitted in June, 1868. The constitution of 1898 prohibits lotteries and the sale of lottery tickets within the state.

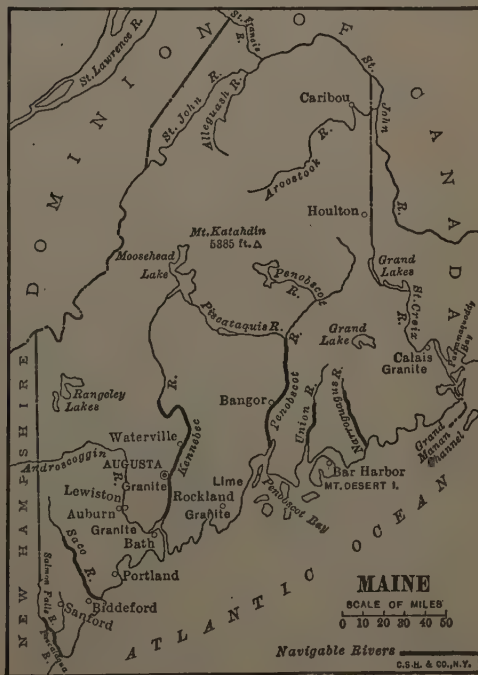
MAINE

MAINE (the Pine Tree State), the most northeasterly state of the American Union, and one of the New England group, lies between latitudes $43^{\circ} 4'$ and $47^{\circ} 27' 34''$ N., and longitudes $66^{\circ} 56' 48''$ and $71^{\circ} 6' 41''$ W. It is bounded on the NW. by the Canadian province of Quebec; on the N. and E. by New Brunswick, from which it is separated in part by the St. John River, the Grand or Schoodic Lakes, the St. Croix River, and Passamaquoddy Bay; on the S. by the Atlantic Ocean; and on the W. by New Hampshire, the Piscataqua and Salmon Falls Rivers forming the natural boundary lines at the southwest. The state has a total area of 33,040 sq. m., of which 3,145 sq. m. represent water surface. It ranks as thirty-eighth in size among the states of the Union.

Coast. Measured in a direct line the coast of Maine extends some 270 miles, but counting sinuosities and the island shores, it has a length of about 2,500 miles. The rocky coast-line, trenched in bygone ages by glacial action, and broken and eroded by the unceasing pounding of the sea, affords many safe and capacious harbors, chief of which are Casco, Penobscot, Frenchman's, Machias, and Passamaquoddy Bays. West of the Kennebec River the coast is low, sometimes marshy, and fringed by many low grassy islands; but east of this river the shore becomes more and more rugged, with precipitous cliffs and rounded summits, as in Mt. Desert and Quoddy Head, which are respectively 1,500 and 1,000 ft. high. The charm of the Maine Coast, with its countless bays, its rocks and headlands, its picturesque mingling of land and sea views, is widely known. As the mountains and woods, the lakes and streams to the northward, attract an ever increasing number of those who seek rest, recreation, or sport, so the coast of Maine, drawing votaries from every class, finds its summer visitors more numerous each year.

Relief. The surface of Maine, a part of the New England Upland region, rises gradually from its rugged and much indented water-front on the Atlantic Ocean to the water parting, which sends the waters of the northern third of

the state northward and eastward to the St. John, and that of the southern two-thirds southward to the Atlantic Ocean. In the main it is a gently rolling upland region, broken in its western and north-central sections by a number of isolated mountain clusters and peaks, outposts of the great Appalachian system, all of which are more or less closely connected with the White Mountains of New Hampshire. Mount Katahdin (5,385 ft.) in the north-central part is the highest peak in the state. Southwest of Katahdin, in Franklin County, are found Mount Abraham (3,388 ft.); Saddleback Mountain (4,000 ft.), near Rangeley Lake; Mount Bigelow (3,600 ft.), on the line between Somer-



set and Franklin Counties; and Blue Mountain (3,200 ft.), also in Franklin County. The northern slope of the state is quite hilly in the middle and western portions, but descends gradually both to the north and northeast. It consists largely of forest land and is very sparsely inhabited, the resort of the trapper, the sportsman, and the lumberman, rather than the home of an agricultural people.

Drainage. The St. John River, throughout the greater part of its course in Maine, is a somewhat sluggish stream, having for its main tributaries the Aroostook, the Allaguash, and the St. Francis Rivers. The chief rivers flowing to the south are the Penobscot, navigable for ships to Bangor, 60 m. from the sea; the Kennebec, which is navigable as far as Waterville, 68 m. from the sea; the Androscoggin, which enters the Kennebec about 18 m. from its mouth; and the Saco, which rises in the White Mountains in New Hampshire and enters the Atlantic seven miles below Biddeford, where there is a fall of 55 feet. Scattered over all sections of the state are not fewer than 1,600 beautiful lakes and ponds. These, in their picturesque settings of hill and woodland, have made Maine one of the ideal summer resort areas of the nation. Many of the lakes abound in trout, salmon, togue, black bass, and pickerel. Game is still plentiful in the wilder parts of the state. Moosehead Lake, on the boundary between Piscataquis and Somerset Counties, the largest inland body of water wholly in New England, is 35 m. long and from 2 to 10 m. wide, with an area of about 120 sq. miles. The Rangeley Lakes (sometimes called the Androscoggin Lakes), a chain of beautiful lakes in Franklin and Oxford Counties in the western part of the state, are connected by straits or short streams, and form a continuous water communication for about 50 miles. One of the chain, Umbagog Lake, extends into New Hampshire and its outlet helps to form the Androscoggin River. These lakes have an area of between 80 and 90 sq. m., and are from 1,200-1,500 ft. above the sea. Chesuncook and Twin Lakes, and the Grand or Schoodic Lakes at the head-waters of the Saint Croix on the eastern boundary, are famed for their picturesque features. Aside from the charm and beauty which these lakes give to the landscape, they play an important part in the industrial life of the state, since they contribute largely to the supply of water power for which the rivers of Maine are so well adapted. Considerable areas of the northern part of the state are swampy.

Climate. The climate of Maine is cool and moist, and extremes of temperature are infrequent. The heat of summer is tempered by the sea and land breezes, and the steady cold of winter is bracing and more easily borne than are the sudden changes of more southerly latitudes. The mean annual temperature for the entire state is about 42° F. The summers are short, with a mean temperature of 62°, there being less

than five months between frosts even in the most favored sections of the state. The winter climate is severe for the latitude, the mean temperature being about 20° F. Many of the harbors remain open during the entire winter, as heavy tides and off-shore winds prevent the accumulation of ice. The winds are variable, seldom blowing from the same direction for many days in succession. Fog is frequent in summer. The annual precipitation is about 42 in., distributed very evenly throughout the year.

Agriculture. In the Aroostook valley is the largest area of good arable land in all New England, and in the river valleys the soil is generally fertile; but Maine is not preëminently an agricultural state. The cultivation of cereals in most farming districts has given way in recent years to market-gardening, dairying, and egg and poultry production. The fine quality of the apples and small fruits grown in the southern part of the state, and the proximity of good markets, have induced many farmers to give more attention to horticulture than formerly.

Forests. The lumbering industries of the state are important, and the forest area under the state department of forestry tends to increase. Spruce, poplar, cedar, and white birch are the leading trees. The production of white (or Weymouth) pine, for which Maine was once famous, is now very limited. Oak, maple, and beech are scarce. The forest products include wood-pulp, potash, charcoal, firewood, tanners bark, and maple sugar.

Fisheries. Fishing is now, as it has always been, one of the important industries. Maine markets more clams than any other state in the Union, and the scallop fishery is becoming more and more valuable. Other important catches are cod, hake, herring, haddock, smelt, mackerel, swordfish, shad, salmon, cusk, lobster, eels, and halibut. Among the industries connected with fishing are the canning of herring (as sardines), lobster, and salmon, and the manufacture of fish-oil and guano.

Minerals. The principal minerals are granite, limestone, clay products, and mineral waters.

Manufactures. The industrial life of Maine and the chief sources of her wealth are now centered in her great and growing manufactures. The extensive forests, the wonderful water powers furnished by the rivers, the good harbors, and the excellent transportation facilities of the state, are the principal factors which have made possible the great manufacturing development of the present, which promises an even greater growth in the future. The ships built in Maine were for generations among the best afloat, but that industry has declined. Taken in the order of their value the leading manufactured products are: paper and wood-pulp, lumber and timber products, cotton goods, woolen goods (including worsted, felt goods, and wool hats), boots and shoes, canned and preserved goods, foundry and machine-shop products, and flour-mill and grist-mill products.

Education. Education is free for pupils from five to twenty-one years of age, and compulsory from seven to fifteen years of age during all the time that school is in session, except that necessary absences may be excused. The common school system is administered by towns and cities, subject to an increasing amount of control through enactments of the state legislature and the general supervision of the state superintendent. The town officers are a superintending school committee of three members, and a superintendent. The members of the committee are elected for a term of three years, one retiring every year, and women, as well as men are eligible for the office. The superintendent may be elected by the town or appointed by the committee; or towns having not less than twenty nor more than fifty schools may unite in employing a superintendent. Each town and city is required to furnish text-books, apparatus, and supplies, without cost to the pupils. The minimum length of the school year is fixed by statute at twenty weeks, but the average length is about twenty-eight weeks. The state maintains six normal schools—at Farmington, at Castine, at Gorham, at Presque Isle, at Fort Kent, and at Machias. The state provides for manual training in the normal schools and gives state aid for manual training in towns. At the head of the public school system is the University of Maine, near the village of Orono, in Penobscot County. Among the important private institutions for higher education are: Bowdoin College, Brunswick; Colby College (Baptist), Waterville; and Bates College (non-sectarian), Lewiston.

Government. Maine is governed under the constitution of 1819 and subsequent amendments. Suffrage is the right of all male citizens of the United States who are twenty-one years of age or over, and have lived in the state for three months next preceding any election. Residence in the state because of being in the military, naval, or marine service of the United States, or because of being students at college does not qualify for the suffrage; the following classes are also excepted: paupers, persons under guardianship, Indians not taxed, and all persons intellectually incapable of reading the state constitution in the English language, or of writing their names. **EXECUTIVE.** The governor is the only executive officer of the state elected by popular vote. His term of office is two years, and the constitution requires that he shall be at least thirty years of age, a native-born citizen of the United States, that he shall have been a resident of the state for five years, and that he shall reside in the state while holding office. There is no lieutenant-governor, the president of the Senate succeeding to the office of gov-

ernor in case of a vacancy. An advisory council of seven members, elected by the legislature, aids and counsels the governor in the appointment of the subordinate officers of the state government. **LEGISLATIVE.** The legislative branch of the government is composed of a Senate and House of Representatives. It meets at Augusta biennially (odd number years), and no limit as to time restricts its sessions. Members of each house are elected for a term of two years. Every senator and every representative must at the beginning of his term have been for five years a citizen of the United States, for one year a resident of the state, and for three months next preceding election, a resident of the township or district which he represents. **JUDICIARY.** At the head of the department of justice is the supreme judicial court, which consists of a chief justice and seven associate justices appointed by the governor and council for a term of seven years. In Cumberland and Kennebec counties there is a superior court presided over by one justice, and in each of the counties there are a probate court, trial courts, and justice of the peace courts. **LOCAL GOVERNMENT.** The principal forms of local government are the county, the town, the plantation, and the city. The chief functions of the county are to assist the state in the administration of justice, and in the making and care of roads. Its officers, all of whom are elected, are three commissioners, a treasurer, a register of deeds, a judge and a register of probate, and a sheriff. The principal officers of the town are the selectmen, town clerk, assessors, collector, treasurer, school committee, and road commissioner. Maine is the only state in the Union that retains what is known as the organized plantation, a governmental unit organized from an unincorporated township having at least 200 inhabitants. The principal officers of a plantation are the moderator, clerk, three assessors, treasurer, collector, constable, and school committee.

History. Maine was visited by many of the early explorers, including the Cabots, Verrazano, Gomez, Gosnold, Pring, du Guast, De Monts, and others. The first permanent settlement dates from about 1623. The eastern part of the state was a part of Acadia or Nova Scotia until 1691, at which time the whole region then known as Maine was merged in the "province of Massachusetts Bay." Maine became a separate state in 1820, her admission being a part of the Missouri Compromise. A dispute with Great Britain over the northern boundary of the state was settled by the Webster-Ashburton Treaty in 1842. The Maine liquor law was passed in 1851. The long controversy over the northeast boundary was settled in 1910.

MARYLAND

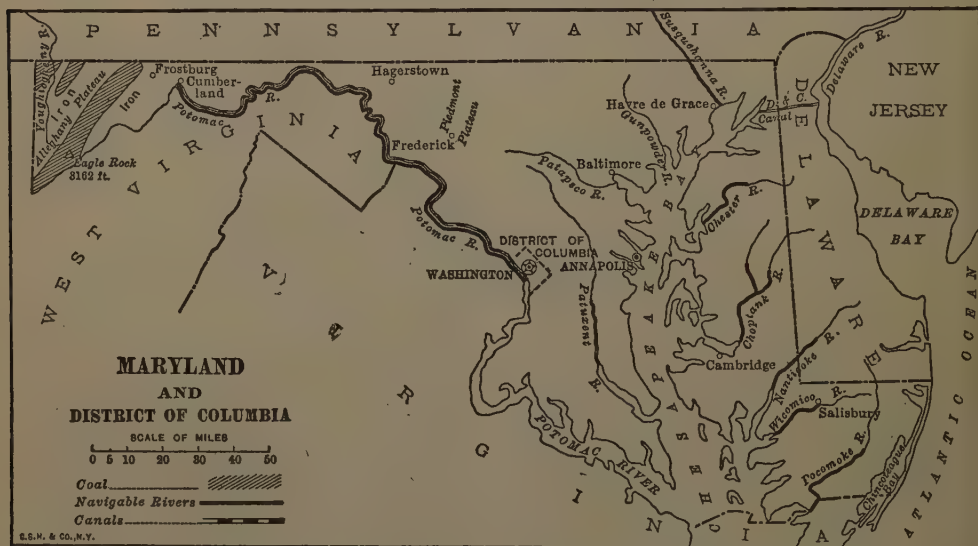
MARYLAND, one of the South Atlantic States and one of the thirteen original states of the American Union. It lies between latitudes

37° 53' and 39° 43' 36" N., and longitudes 75° 3' 45" and 79° 35' W. It is bounded on the N. by Pennsylvania; on the E. by Delaware

and the Atlantic Ocean; and on the S. and SW. by Virginia, the District of Columbia, and West Virginia. It is separated from the two Virginias, except on the extreme west, by the Potomac River and its north branch. Maryland ranks forty-first in area (12,327 sq. m., of which 2,386 sq. m. represents water surface) among the states of the Union.

Relief. Maryland presents great diversity of surface, as it is crossed from north to south by each of the leading physiographic features of the eastern section of the United States—the Coastal Plain, the Piedmont Plateau, the Appalachian Mountains, and the Allegheny Plateau. The Coastal Plain section, or tide-water Maryland, includes nearly the whole southeastern half of the state. Its separation from

the main, it presents a broad rolling surface and is divided near its middle by Parr's Ridge, an elevated strip which extends from northeast to southwest. West of Parr's Ridge the surface slopes gradually to the Monocacy River, beyond which it rises rapidly towards Catoclin Mountain. The Appalachian section of the state, generally known as Western Maryland, is crossed by the numerous parallel ridges of the Appalachian system. The highest elevations of the state rarely exceed 3,000 feet. The Great Appalachian Valley crosses the state west of the Blue Ridge. Near the western border of the state the mountains are merged into a rolling plateau, having an average elevation of 2,500 ft.—a continuation of the Allegheny Plateau of Pennsylvania and New York.



the Piedmont section is marked by a low ridge, which extends from the Susquehanna River at the Pennsylvania border, through Baltimore and Rockville, to the Potomac River. Chesapeake Bay divides the state into two parts known as the Eastern Shore and the Western Shore. The Eastern Shore is a level, sandy, and generally fertile region, of low elevation, except in the north, where the surface becomes more rolling and hilly. Along its Atlantic border extends the narrow Sinepuxent Beach, a sandy pit which encloses the shallow lagoon known as Chincoteague Bay. The Western Shore, more elevated and more undulating than the Eastern Shore, slopes from northwest to southeast. Along the "fall-line," which forms its western border are a number of points about 300 ft. in height. The Piedmont Plateau section of Maryland extends west from the Coastal Plain section to the base of Catoclin Mountain, on the west border of Frederick county. In

Drainage. Chesapeake Bay, varying in width from 4 to nearly 40 m., has a channel deep enough for the largest ships from its Atlantic entrance nearly to the mouth of the Susquehanna River. Its effect upon the industrial and commercial development of the state is incalculable. It is connected with Delaware Bay and River by the Delaware and Chesapeake Canal. The Susquehanna and Tide-Water Canal follows the west bank of the Susquehanna River. The main drainage of the Eastern Shore is southwestward to Chesapeake Bay, but a low water parting sends a few insignificant streams to the Atlantic. The principal streams draining the Western Shore are: the Potomac, which is navigable as far as the city of Washington; the Patuxent, the Patapsco, and the Gunpowder, all flowing to Chesapeake Bay and all navigable near their mouths; and the Susquehanna, only a few miles of whose course is within the state. The Piedmont section is drained by the streams

that cross the Western Shore to Chesapeake Bay. All the rivers of Western Maryland flow south into the Potomac except the Youghiogheny and its tributaries, which are carried through the Monongahela, the Ohio, and the Mississippi to the Gulf of Mexico.

Climate. The climate of tide-water Maryland is largely influenced by the Atlantic Ocean and Chesapeake Bay. The winters are usually mild and the summers hot. To the elevation of Western Maryland may be attributed its delightful summer climate, and also its cold winters. The normal average annual temperature for the entire state is about 45° F., ranging from 48° in the northwest to 57° in the southeast. The normal annual precipitation for the state is 43.5 inches, ranging from 25 to 35 in. in the mountainous belt of the extreme western section to over 50 in. on the eastern slope of Catocin Mountain, and along the middle shores of Chesapeake Bay. The prevailing winds are westerly.

Agriculture. Maryland has wide range of soils and climatic conditions and is therefore adapted to a variety of agricultural products. Of the total land area of the state 79.5 per cent is in farms, and 66.3 per cent of the farm land is improved. It is worthy of note that while the acreage of the state has declined slightly in recent years, the number of farms has increased. In the same period, the total value of farm property has greatly increased. The general character of Maryland agriculture is indicated by the fact that about one-half (49.9 per cent) of the total value of crops is contributed by cereals, about one-sixth (18.2 per cent) by potatoes and other vegetables, and more than one-eighth (13.7 per cent) by hay and forage. The remainder, representing 18.2 per cent of the total, consists mostly of forest products, fruits and nuts, tobacco, small fruits, flowers and plants, and nursery products. Increasing attention is being given to market-gardening and to raising fruits and vegetables for canning and preserving. The live stock, dairy, and poultry interests are large.

Fisheries. The fisheries of the state are valuable, especially the oyster fisheries, which yield more than any other state in the Union. Other products are: shad, bass, perch, and various shellfish.

Minerals. The coal deposits furnish the most important mineral product of the state, the great coal beds being chiefly in Allegany and Garrett Counties. Some iron ore is worked. Gold, silver and copper ores have been found in the state. Maryland has good building stones, chiefly granites, limestones, slate, marble, and sandstones. Brick, clays, and materials for porcelain are among the mineral products of commercial value.

Manufactures. The manufacture of clothing is by far the most important industry of the state. The other leading manufactures (in the order of value) are: copper, tin, and sheet-iron

products, canning and preserving, slaughtering and meatpacking, lumber and timber products, foundry and machine-shop products, tobacco, fertilizers, flour- and grist-mill products, and cars and general shop construction by steam railroad companies.

Education. At the head of the public school system of Maryland is a state board of education and a state superintendent, and under these in each county is a county board which appoints a county superintendent and a board of trustees for each school district, none of which is to be more than four miles square. The state superintendent serves for a term of four years. A school attendance law, referring especially to the city of Baltimore but capable of extension to most of the counties, requires attendance for the whole school year of children between the ages of eight and twelve, and also of those between the ages of twelve and sixteen who are not lawfully employed. A separate school for negro children is to be maintained in every election district in which the population is large enough to justify it. The state maintains four normal schools and one agricultural college. Maryland supports no state university, but Johns Hopkins University, one of the leading institutions of its kind in the country, receives large appropriations from the state; another institution which receives state aid is the University of Maryland. Among other schools for higher or special education are: Washington College (non-sectarian), at Chestertown; Mount St. Mary's College (Roman Catholic), at Emmitsburg; New Windsor College (Presbyterian), at New Windsor; Loyola College (Roman Catholic), at Baltimore; Western Maryland College (Methodist Episcopal), at Westminster; the Peabody Institute (for musical education), at Baltimore; the Woman's College, at Baltimore, and numerous professional and other institutions.

Government. Maryland is governed under a constitution adopted in 1867, which has been frequently amended since that time. Suffrage is the right of all male citizens of the United States (including negroes) twenty-one years of age or over, who have resided for one year in the state, six months in the Congressional district, and one day in the precinct next preceding election; persons convicted of any infamous crime and not since pardoned by the governor, as well as lunatics and those convicted of bribery at a previous election, are not eligible for suffrage. **EXECUTIVE.** The chief executive authority of the state is vested in a governor elected by popular vote for a term of four years. There is no lieutenant-governor; the office of governor is filled, in case of a vacancy, by a candidate elected by the General Assembly. A candidate for governor must be at least thirty years of age, must have been for ten years a citizen of the state, must have lived in the state for five years immediately preceding election, and must at the time of his election be a qualified voter

therein. The governor appoints, subject to the approval of the Senate, the secretary of state, the superintendent of public education, the commissioner of the land office, the adjutant general, justices of the peace, notaries public, the members of various administrative boards, and other administrative officers. The governor's veto may extend to items of a money bill, and no bill vetoed by him may become a law unless passed over his veto by a three-fifths vote of the members of the General Assembly. Other executive officers of the state are: a treasurer, elected by joint ballot of the General Assembly for a term of two years; a comptroller, elected by popular vote for two years; and an attorney-general, elected by popular vote for four years. **LEGISLATIVE.** The Legislature, or General Assembly, meets at Annapolis biennially (even number years), the session being limited to 90 days. It consists of a Senate and a House of Delegates. Senators (one from each of the twenty-three counties and one from each of the legislative districts of Baltimore) are elected for a term of four years, the terms of one-half the number expiring every two years. Delegates are elected for a term of two years, from each county and from each legislative district of Baltimore, according to population. A senator must be at least twenty-five years of age, and both senators and delegates must have lived within the state at least three years and in their county or legislative district at least one year next preceding their election. No minister, preacher, or priest is eligible for either office. **JUDICIARY.** The administration of justice in Maryland lies in a court of appeals, circuit courts, special courts for the city of Baltimore, orphans' courts, and courts of justices of the peace. The state (exclusive of the city of Baltimore) is divided into seven judicial circuits, in

each of which are elected for a term of fifteen years one chief judge and two associate judges who, together with one elected from the city of Baltimore, constitute the court of appeals. The three judges elected in each circuit constitute the circuit court of each of the several counties in such circuit. Three other judges are elected for terms of four years in each county and in the city of Baltimore to constitute an orphans' court. The number of justices of the peace for each county is fixed by local law. They are appointed by the governor for terms of two years.

History. Maryland, through the grant made by Charles I. to George Calvert, first Lord Baltimore, became a proprietary colony, and its settlement was begun at St. Mary's, in 1634. During colonial times it was involved in the Claiborne rebellion, and in boundary and other disputes. In 1649, religious toleration was enacted for all sects and churches which acknowledged a belief in the Trinity. For many years the colony was torn by contest between the proprietary party and Puritan settlers. There was a time when Roman Catholics were denied the privileges which Lord Baltimore had granted to Protestants: Baltimore was founded in 1729. The boundary with Pennsylvania was finally settled, 1763-'69, by Charles Mason and Jeremiah Dixon, who established the line, named after them, which runs along the parallel 39° 43' 26.3" N. Lat. Mason and Dixon's line became famous as the dividing line between the free states and the slave states. Maryland remained in the Union during the Civil War, but slavery existed in the state until the final emancipation of all slaves by the Federal Government. Since 1865 there has been a large immigration from the northern states as well as from the countries of Europe.

MASSACHUSETTS

MASSACHUSETTS (name of one of the early Indian tribes), one of the New England States, and one of the original "Thirteen" of the American Union. It lies approximately between latitudes 41° 15' and 42° 50' N., and longitudes 69° 55' and 73° 30' W. It is bounded on the N. by Vermont and New Hampshire; on the E. by the Atlantic Ocean; on the S. by the Atlantic Ocean, Rhode Island, and Connecticut; and on the W. by New York. It ranks forty-fourth in area (8,266 sq. m., of which 227 sq. m. represent water surface) among the states of the Union.

Coast. The coast-line of Massachusetts extends from Salisbury Beach on the northeast to the Rhode Island boundary on the southwest. Its main indentations are Massachusetts Bay (terminating in Boston Harbor), Cape Cod Bay, and Buzzards Bay. The smaller inlets and harbors are those (beginning at the north) of Newburyport, Ipswich, Annisquam (or Squam), Gloucester, Beverly, Salem, Marble-

head, Nahant, Lynn, Plymouth, Sandwich, Barnstable, Wellfleet, Provincetown, Chatham, Cotuit, Hyannis, Woods Hole, New Bedford, and Westport. Plum Island in the northeast is the northernmost of the sand spits that are so characteristic of the Atlantic coast. Cape Ann, the bold and rocky promontory of the northeast is a summer recreation ground with romantic scenery, whose native inhabitants are largely engaged in the fisheries and in granite quarrying. From Cape Ann to Boston the shore is rocky and picturesque, and summer resorts are numerous. Boston Harbor is the finest roadstead on the coast. Cape Cod, often likened to a human arm bent at the elbow, 40 m. from shoulder to elbow, and 30 m. from elbow to hand, is a sandy ridge nowhere more than a few miles broad. This also is a summer resort land, dotted with cottages and hotels. Cape Cod can no longer be classed as a peninsula, for a ship canal has been cut across the "shoulder" which joins the waters of Cape Cod and Buz-



zard's Bays. This canal eliminates the dangerous passage around the Cape and shortens the distance from Boston to New York and southern ports by seventy miles. Buzzard's Bay, measuring about 10 by 30 m., and separated from Vineyard Sound by the Elizabeth Islands, is a popular yachting ground. Its shores are lined with summer homes and hotels. Woods Hole is a station of the United States Bureau of Fisheries, and a marine biological laboratory is located there. Off the south coast lie a number of islands, of which the largest is Martha's Vineyard, about 20 m. long, with an extreme breadth of a little less than 10 miles. In former years its population was wholly dependent upon the sea, but now its chief revenues are drawn from summer boarders. Vineyard Haven is a spacious harbor, and Oak Bluffs one of the chief resorts of the Atlantic coast. Nantucket is a smaller island southeast of Martha's Vineyard with the same type of population and pursuits as its larger neighbor.

Relief. The southeastern corner of Massachusetts is a sandy and generally level lowland with a slightly elevated ridge (Manomet) south of Plymouth. The rest of the state is a part of the slanting upland that includes all of southern New England. The surface is uneven, varying from low plains near the seacoast to a rolling country in the interior, and becoming mountainous towards the western boundary. The Blue Hills in Milton are the elevations nearest to the coast, and are conspicuous to navigators

when approaching Boston. The loftiest elevation east of the Connecticut Valley is Mount Wachusett (2,108 ft.), a detached elevation in Worcester county. Rising from the lowlands of the Connecticut, on the west, are Mount Tom (1,214 ft.), Mount Holyoke (954 ft.), and Mount Toby (1,275 ft.). Beyond the lowlands and forming the western border of the valley are the Berkshires Hills, a part of the Great Appalachian System, which are continued to the northward in the Green Mountains of Vermont. The Berkshire country is one of the most beautiful regions in all New England. Its charm has been celebrated by American writers, and it has become a favored residence section for people of discrimination who have the means to command a home in the country. The hill ridges are long and wooded, and intersected by deep valleys. Many picturesque lakes, nestled among the hills, add to the attractiveness of the landscape, and increase facilities for recreation and aquatic sports. The Hoosac Hills, a range of the Berkshires from 1,200 to 1,600 ft. high, separate the valleys of the Housatonic and Connecticut Rivers. West of the Housatonic valley is the Taconic range, which contains Greylock or "Saddleback" (3,538 ft.), the highest point in the state, and Mount Williams (3,042 ft.).

Drainage. The Connecticut River, having its head waters in northern New Hampshire, flows through the state from north to south, and is navigable by small craft. Its valley is the

most productive agricultural region of the state and is famed for the quiet charm and beauty of its scenery. The Housatonic, rising in Berkshire county, winding along the barrier of the Hoosac Hills, and running southward into Connecticut, is the most beautiful river of the state. The Merrimac, the second river of the state in volume, enters the state from New Hampshire, flows through a lovely valley in the northeastern corner of the state, and furnishes water-power for the great manufacturing towns of Lowell, Lawrence, and Haverhill in Massachusetts, as well as for the towns along its course in New Hampshire.

Climate. The climate of Massachusetts is variable and marked by sudden changes and extremes of temperature. Near the coast the ocean tempers the climate considerably both in winter and summer. The mean average temperature of Boston is 47.5° F., but in the interior it is about 45°. The mean summer temperature for the entire state is 70° F. In the elevated western part of the state the winters are severe, having a winter mean of 23°, and the springs and summers are late and cold. The summers and autumns are delightful, especially in the Berkshires. The annual precipitation is 38 to 45 in., decreasing inland, and is quite evenly distributed throughout the year. North-east and east winds prevail in the coast region.

Agriculture. On lands along the borders of the streams, upon the more level areas, and wherever the soil is finely textured, corn and hay are the chief crops. Numerous small bogs of a peaty or swampy nature, in the southeastern part of the state, constitute extremely valuable cranberry soils. The sandy and sandy loam soils, in the vicinity of Boston and in the valleys of the Merrimac and its tributaries, are largely used for market-gardening. The level terrace of the Connecticut basin forms some of the best farm lands within the state. It is upon these soils that the tobacco culture of Massachusetts has been most widely developed, and more recently market-garden and trucking crops, particularly onions, have been extensively produced. These soils also give good yields of corn, oats, and grass. In the Berkshire valleys, in the western part of the state, the soils are excellent for the growth of corn and grass. Throughout the highland portions of the state the steeper slopes are used as mountain pastures or form wood-lot and forest areas. The more gentle slopes are occupied by tilled fields. The leading crops of the state (in the order of value) are: dairy products, hay and forage, potatoes and other vegetables, poultry and eggs, flowers and plants and nursery products, forest products of farms, fruits and nuts, small fruits, cereals, and tobacco.

Minerals. Granite is the chief mineral, and granite quarrying is the leading mineral industry of the state. The principal granite quarries are in Milford (Worcester County), Quincy and Milton (Norfolk County), Rock-

port (Essex County), and Becket (Berkshire County). Other minerals are emery, limestone, quartz, clays and mineral waters.

Fisheries. Fishing has been an important industry in Massachusetts from the days of its first settlement. The whaling trade, of which Nantucket and New Bedford were once the chief centers, is now nearly extinct. The daring deeds of those once engaged in this industry, have been celebrated in poetry and romance, and they contributed much to the wealth and glory of the Bay State and made its name known in every quarter of the globe. At the present time, the great commercial fishing grounds lie nearer the home waters. Cod, caught on the Newfoundland Banks, is now, as it was in colonial times, the most valuable catch, and Gloucester is the chief center of the trade. Haddock, mackerel, herring, pollock, hake, and halibut, are among the other varieties of fish which are commercially important.

Manufactures. Natural facilities for water-power and the energy and intelligence of her people led to an early industrial development, so that to-day Massachusetts is one of the leading manufacturing states of the Union. The principal products of her factories (in the order of their value) are: boots and shoes, cotton and woolen textiles, felt goods, foundry and machine shop products, printing and publishing, slaughtering and meat packing, paper and wood pulp, leather, and electrical and other machinery.

Education. A state Board of Education has general control of the school system of the state, its secretary acting as superintendent in conjunction with local superintendents and committees. Women are eligible for these positions. School attendance is compulsory from seven to fourteen years of age, and the proportion of the child population that attends schools is equaled in but two or three states east of the Mississippi River. No recognition is made in the schools of race, color, or religion. The public school system includes common, high, and normal schools, vocational schools, and various evening, industrial, and truant schools. The commonwealth contributes to the support of textile schools in cities in which 450,000 spindles are in operation. It also maintains aboard a national ship a nautical training school for instruction in the science and practice of navigation. It supports an agricultural school at Amherst. Besides the public schools there are several hundred private schools and numerous higher academies and college preparatory schools. The leading educational institution of the state and the oldest and most famous in the country, is Harvard University (founded 1636) at Cambridge. Other institutions of national repute are: Williams College, at Williamstown; Amherst College, at Amherst; Boston University (Methodist Episcopal); Tufts College, in Medford; Clark University and Clark College, in Worcester; Boston College (Roman Catholic); and College of the Holy Cross in Worcester. Of the various insti-

tutions for the higher education of women the most prominent are: Mount Holyoke, at South Hadley, Smith College, at Northampton, Wellesley College, at Wellesley, near Boston, Radcliffe College, in connection with Harvard, and Simmons College at Boston.

Government. Massachusetts is governed under the constitution of 1780 and its amendments. Suffrage is the right of every male citizen of the United States who has been a resident in the state for one year, and in the election district or precinct for six months previous to the election, provided he can read the constitution of the commonwealth in the English language and write his name. Every female citizen having the qualifications of a male voter may vote in the city and town elections for members of the school committee. Excluded from suffrage are paupers and persons under guardianship. **EXECUTIVE.** Massachusetts is one of the two states in the Union in which the elections for state officers are held annually. The chief executive officers of the state are the governor and lieutenant-governor. No person is eligible to the office of governor unless at the time of his election he shall have been an inhabitant of the state for seven years next preceding his election. He is assisted in his executive functions by an executive council consisting of members chosen to represent divisions of the state. In the governor's absence the lieutenant-governor shall be president of the council but shall have no vote in council, and the lieutenant-governor shall always be a member of the council except when the chair of the governor shall be vacant. The other state officers are secretary, treasurer and receiver-general, auditor and attorney-general, all chosen annually in November. **LEGISLATIVE.** The legislative body, known as the General Court of Massachusetts, consists of a Senate and a House of Representatives, members of which are elected, respectively, from senatorial and representative districts formed on a population basis. The General Court meets annually at Boston on the first Wednesday in January, and at such other times as the members judge necessary, or when called by the governor. The length of session is not prescribed by law. The power of impeachment rests with the house, the trial of impeachment with the Senate. A two-thirds vote of each house overrides the governor's veto. **JUDICIARY.** The judicial power of the state is vested in a supreme judicial court, superior court, probate courts and courts of insolvency, a land court, a

Boston juvenile court, district courts, and a court of appeals. All judicial officers are nominated and appointed by the governor by and with the consent of the council, and they hold office during good behavior. **LOCAL GOVERNMENT.** The county officers are the judge of probate and insolvency, prosecuting-attorney, sheriff, clerk of court, register of probate, register of deeds, and county treasurer. In Massachusetts the word "town" is used officially and colloquially to designate a township. Although the tendency in Massachusetts is towards chartering as cities towns which have a population of 12,000 or more, the democratic institution of the town meeting persists in many large municipalities which are still technically towns. Towns hold their annual meeting in February, March, or April. The town officers consist of selectmen, a clerk, a treasurer, three or more assessors, three or more overseers of the poor, one or more collectors of taxes, one or more auditors, one or more surveyors of highways, a road commissioner, a sewer commissioner, a board of health, one or more constables, two or more field drivers, two or more fence viewers, and a tree warden.

History. The coast of Massachusetts is supposed to have been visited by the Northmen about 1000 A. D.; but the first permanent white settlement was made by the Pilgrim Fathers at Plymouth, near Cape Cod, in December, 1620. This is known as the Plymouth Colony. In 1628, a company of Puritans settled at Salem, and from that beginning was formed the Massachusetts Bay Colony, which included the settlements of Boston, Lynn, and other towns. In 1692, the two colonies were united. After the War of Independence, begun in Massachusetts in 1776 with the battles of Lexington and Bunker Hill, the colony became one of the original thirteen states of the Union. Massachusetts was settled by those who sought religious liberty as they understood that expression, but not as it would be understood by their descendants. Narrow and bigoted they were, and determined to exterminate every heresy; but they were strong, and far in advance of their transatlantic contemporaries. The banishments to Rhode Island and the witchcraft scare are dark spots in the history of the state, but they grow dim in the light of the splendid record of later days. Religious toleration was bound to grow, and Massachusetts has long been a leader among the other states in its devotion to all that stands for human liberty—civil, legal, and religious.

MICHIGAN

MICHIGAN, an East North-Central State of the Union, lies between latitudes 41° 42' and 47° 32' N., and longitudes 82° 25' and 90° 32' W. The northern peninsula is bounded on the N. by Lake Superior; on the E. by Lakes Superior, George, Huron, and Michigan, and by St. Mary's River which separates it from the

Canadian province of Ontario; on the S. by Lakes Huron and Michigan and the Straits of Mackinac, which separate it from the lower peninsula; and S. and W. by Wisconsin. The lower or southern peninsula is bounded on the N. by Lakes Michigan and Huron and the Straits of Mackinac; on the E. by Lakes Huron, St.

Clair and Erie, and the St. Clair and Detroit Rivers which separate it from Ontario; on the S. by Ohio and Indiana; and on the W. by Lake Michigan. The upper peninsula is 318 by 164 m., and the lower peninsula, 227 by 177 m.; and the state has a gross area of 57,980 sq. m., of which 500 sq. m. represent water surface. In size Michigan ranks twenty-second among the states of the Union.

Relief. Lake Huron on the east, and Lake Michigan on the west of the lower peninsula are each 581½ ft. above sea level; Lake Superior on the north of the upper peninsula is 600 ft. above sea level. The greater part of the state is gently undulating, and at a slight elevation above the lakes, but low and even swampy areas are common to many sections. A depressed area crosses the lower peninsula from Saginaw Bay west by south through the valleys of the Saginaw, Maple, and Grand Rivers. Throughout this lowland section the elevations are less than 100 ft. above the lakes. To the southeast of this depression a water parting, with elevations varying from 400–600 ft. above the lakes, extends from the southern part of Huron county to the southern border of the state. The east slope of this parting falls rapidly to a low, flat belt, from 5–35 m. wide along the eastern border of the state. West of the divide and south of the depression, southwest Michigan is occupied by river valleys and by the gently rolling uplands which divide them. From the central depression northward, the land rises gradually to the plateau district, which occupies the northern and northwestern parts of the state. This is a rolling country which reaches its culminating point (about 1,100 ft. above Lake Michigan) north of the center. The surface of the northern peninsula is much more irregular than that of the southern or lower. A

depressed area extends west and south through the middle, from Chippewa County, on the east, to Delta County, on the west. This depression lies between two ranges of hills, one lining the south shore and ranging from 100–300 ft. in height; the other on the north approaching close to the shores of Lake Superior. The celebrated Pictured Rocks in Alger County, form the western portion of this northern range. The western part of the northern peninsula is a much more rugged region. South and southeast of Keweenaw Bay is the Marquette iron region, in which some of the peaks of the Huron Mountains rise to an elevation of 1,400 ft. or more above the lake. To the south of this region is the Menominee iron district, with a number of east and west ridges. Extending in a general northeast and southwest direction, through the Keweenaw peninsula to the Wisconsin border and beyond, is the middle of three approximately parallel ridges, separated from each other by low, flat lands, with here and there an isolated peak having an elevation of 900–1,500 ft. above the lake. In the northern portion of these ranges and on Isle Royale are found the Michigan copper bearing rocks. The highest point in the state (2,023 ft.) is found in the Porcupine Mountains in Ontonagon County.

Drainage. The southern or lower peninsula of Michigan abounds in small lakes and streams, some of which are navigable to a considerable extent, while others afford much water power. The larger rivers of the state, the Muskegon, Grand, St. Joseph, Manistee, and Kalamazoo, are in the west portion of the lower peninsula. The rivers along the eastern border of the lower peninsula are generally sluggish streams. Many of the streams of the upper peninsula that flow into Lake Superior contain falls and rapids. Numerous islands in the surrounding lakes are included within the Michigan territory.

Climate. The climate of Michigan is marked by extremes of winter temperature, the thermometer in some sections frequently marking -15° to -30° F. The mean annual temperature is 46.1° (summer, 68.5° ; winter, 23.8°). The temperature of the entire lower peninsula is considerably influenced by the lakes, but as the prevailing winds are westerly, it is in the western portion of that peninsula that the moderation is greatest. The prevailing winds of the upper peninsula are northwesterly, consequently the lakes have but little effect on the temperature there. Throughout the state July is invariably the warmest month, February the coldest. The mean annual precipitation is 35 in. and is evenly distributed over all parts of the state, but the snowfall is exceptionally heavy along the northern shore of the upper peninsula.

Agriculture. The soil is generally rich and more than half of the state's land surface is included in farms. Much attention is given by farmers to the raising of domestic animals, poultry, and bees. The leading crops of the state (in the order of their importance as judged



by value) are hay and forage, corn, oats, wheat, potatoes, dry edible beans, and rye. Among special crops may be mentioned peppermint, of which Michigan produces the bulk of that grown in the United States. The peppermint district is in the southwestern corner of the state. Kalamazoo, Jackson, Washtenaw, Lenawee, Ingham, Bay, and Muskegon are the leading celery producing counties. Market-gardening is an important industry both of the counties in the southeast and in the southwest. All the principal fruits are grown in large quantities in what is known as the "fruit belt" in the southwest.

Fisheries. Michigan has extensive fishing interests. Nearly one-half of the catch, both in quantity and value, is taken from Lake Michigan and more than 90 per cent of the value consists of trout, herring, whitefish, and perch. There are both state and national hatcheries established within the state, and state laws protecting the industry by regulating the size of the mesh in the net used, prescribing the size of fish that may be taken and kept, and establishing a closed season for several kinds of fish.

Forests. Before it was settled by whites, the section now included in Michigan was a forest, except a portion in the southwest where there was a small prairie area. Less than 40 per cent of the state is now in woodland. Red oak, birch, elm, ash, white cedar, hemlock, basswood, spruce, poplar, balsam, fir, and several other kinds of trees are found in many sections, but most of the merchantable timber, especially in the lower section, has been cut.

Minerals. Michigan has immense resources of iron ore in the Marquette, Menominee, and Gogebic districts. Next in value to iron among the mineral products is copper. There are about twenty copper mines in the Keweenaw Peninsula and its vicinity, and of these the Calumet and Hecla mine is one of the most famous and one of the most profitable copper mines in the world. Fields of bituminous coal extend over an area of over 10,000 sq. m. in the central portion of the lower peninsula, but its quality is inferior. Salt wells are numerous in the middle and southeast sections of the lower peninsula. The other minerals include clays, Portland cement, graphite, asbestos, grindstone, gypsum, sandstone, limestone, mineral waters, and petroleum.

Manufactures. Michigan has for many years been one of the leading manufacturing states. The early development of its manufacturing industries was due largely to the utilization of its extensive forests, while the growing markets afforded by the rapidly developing West, the advantageous situation of the state with respect to markets, and its important agricultural and mineral resources, have also been factors in its progress. The leading industries (arranged in the order of value of product) are the manufacture of automobiles; lumber and timber products; foundry and machine-shop

products; flour-mill and grist-mill products; furniture and refrigerators; printing and publishing; tobacco manufactures; leather; butter, cheese, and condensed milk; paper and wood pulp.

Education. Michigan is noted for the high standard of her public schools. Each township operating under the District Act has two school inspectors who with the township clerk constitute the township board of school inspectors. This board possesses the authority to divide the township into school districts, and exercises a general supervision over the several schools within its jurisdiction. In each district having an ungraded school, the affairs of the school are under the supervision and direction of a district school board. Each county has a school commissioner, elected for four years, who has general supervision over the schools within his jurisdiction. Finally, at the head of all the public, elementary, and secondary schools of the state are the state superintendent of public instruction, elected for a term of two years, and the state board of education. In every district having 800 children or more between the ages of five and twenty, the state requires that school be taught not less than nine months a year. Under an act of 1913, the period of compulsion covers the ages seven to sixteen years, for the entire term of school. The higher state institutions of learning comprise four normal schools located at Ypsilanti, Mt. Pleasant, Marquette, and Kalamazoo; an agricultural college, at East Lansing; a college of mines, at Houghton; and the University of Michigan, at Ann Harbor. Among the important institutions within the state, but not maintained by it, are: Albion College (Methodist Episcopal), at Albion; Hillsdale College (Free Baptist), at Hillsdale; Kalamazoo College (Baptist), at Kalamazoo; Adrian College (Methodist Episcopal), at Adrian; Olivet College (Congregational), at Olivet; Hope College (Reformed), at Holland; Detroit College (Roman Catholic), at Detroit; Alma College (Presbyterian), at Alma; and several professional schools at Detroit.

Government. Michigan is now governed under a constitution adopted in 1850, and its amendments. Suffrage is conferred upon every male citizen of the United States who is twenty-one years of age and over, and has resided in the state six years, and in his own township or ward twenty days immediately preceding an election; and any woman may vote in an election involving the direct expenditure of public money or the issue of bonds, provided she has the qualifications of male electors and has property assessed for taxes in any part of the district or territory affected by the election in question. **EXECUTIVE.** At the head of the executive department is the governor, elected for two years. A lieutenant-governor is elected at the same time and for the same term. These officers must be at least thirty years of age and must have been for five years citizens of the United States

and for the two years immediately preceding their election residents of the state. The veto power of the governor may be applied to any item or items of any bill making appropriations of money and embracing distinct items. An affirmative vote in each house of two-thirds of the members elected is required to pass a bill over his veto. The lieutenant-governor succeeds the governor in case of vacancy, and next in order of succession is the secretary of state. The secretary of state, treasurer, auditor-general, attorney-general, commissioner of the land office, superintendent of public instruction, and judges are elected, but minor executive officers are appointed. **LEGISLATIVE.** The legislature consists of a Senate and House of Representatives. It meets at Lansing biennially (odd number years), the length of session being unlimited. Both senators and representatives are elected for a term of two years by single districts, except that a township or city which is entitled by its population to more than one representative elects its representatives on a general ticket. **JUDICIARY.** The administration of justice is entrusted to a supreme court, circuit courts, one probate court in each county, and not exceeding four justices of the peace in each township. The supreme court is composed of one chief justice and seven associate justices, elected for a term of eight years, not more than two retiring every two years. It holds four sessions annually and exercises a general control over the inferior courts. There is only one circuit court judge for a circuit, unless the legislature provides for the election of more. The term of office is six years. Each county elects a judge of probate for a term of four years. Justices of the peace are elected by the town-

ships for a term of four years. **LOCAL GOVERNMENT.** For the purposes of local government the state is divided into counties, each of which is in turn divided by north and south, and east and west lines into townships. In some of the sparsely inhabited counties the townships are much larger than in other parts of the state. Officers of the township are supervisor, clerk, treasurer, highway commissioner, one overseer of highways for each highway district, justice of the peace, and constables. All township officers are elected at the annual township meeting in April. The supervisor, two justices of the peace, and the clerk constitute the township board. The supervisor is also the township assessor, and the several township supervisors constitute the county board of supervisors. Other county officers are a treasurer, clerk, sheriff, register of deeds, attorney, surveyor, and two coroners, each elected for a term of two years; a school commissioner elected for a term of four years; and one or more notaries public appointed by the governor.

History. What is now the state of Michigan was probably visited by Jean Nicolet in 1634 at Sault Ste. Marie, where the first permanent white settlement was made by Father Marquette in 1668. Detroit was founded in 1701 by the French under Cadillac. The country was ceded to Great Britain in 1763; later was the scene of Pontiac's War; was formally surrendered to the United States in 1796; formed part of the Northwest Territory and later of Indiana Territory; and was constituted Michigan Territory in 1805. Detroit was taken by the British during the War of 1812. Michigan was recovered by the United States in 1813, and was admitted to the Union in 1837.

MIDWAY ISLANDS

MIDWAY ISLANDS, two small islands belonging to the United States, lie in the Pacific Ocean in latitude 28° 12' N., and longitude 177° 22' W. The islands are known respectively as Sand, or Eastern Island, and Western Island. They are 1,200 m. northwest of Hawaii, about midway between America and Asia, and are of importance because Sand Island is utilized as a relay station of the Commercial Pacific Cable Company. The superintendent of the cable station and his assistant, together with a small

company of government marines, are the only inhabitants. The islands are low and sandy, almost destitute of vegetation, and are surrounded by a coral reef some 16 m. in circumference, 5 ft. high, about 25 ft. wide, and open only on the west side. Sand Island is $1\frac{1}{4}$ m. long and $\frac{3}{4}$ of a mile wide, and has an extreme elevation near its center of nearly 43 ft. above the sea. The sheltering reef renders the island habitable, and Welles Harbor is roomy and safe.

MINNESOTA

MINNESOTA, a West North-Central State of the Union, lies between latitudes 43° 30' and 49° N., and longitudes 89° 39' and 97° 18' W. It is bounded on the N. by the Canadian provinces of Manitoba and Ontario; on the E. by Lake Superior and Wisconsin; on the S. by Iowa; and on the W. by South and North Dakota. Minnesota is about 400 m. in length and 350 m. in width. It ranks eleventh in size among the

states, with a gross area of 84,682 sq. m., of which 3,824 sq. m. are water surface.

Relief. The greater part of Minnesota is rolling or hilly country, much dissected by rivers and without strong relief. The average elevation for the entire state is about 1,280 ft. above sea level, or 600 ft. above the surface of Lake Superior. The northeastern part of the state is included in the Great Lakes District,

and the southern and western parts are in the Prairie Plains Province. In an elevated area in the north-central part of the state are the remote sources of three great continental river systems. From this central water parting, the surface slopes off in all directions, but rises again in the extreme northeast corner, where the Mesaba (or Mesabi) Range (the highest land in the state) reach an altitude of about 2,400 ft.; and in the southwest corner, where an altitude of 1,800 ft. is reached in the Coteau des Prairies. Only in the valleys of the Red, Minnesota, and Mississippi Rivers, does the surface of the state fall below an elevation of 800 feet. Open, rolling prairies, interspersed with groves and belts of hardwood timber, predominate in the central and southern portions of the state. A little north of the center the state is traversed from northwest to southeast by an extensive forest area, in which oak predominates.

Drainage. Of the three great river systems mentioned above, the Mississippi with its tributaries drains about two-thirds of the state into the Gulf of Mexico. In the northeast, the waters of the St. Louis, and several smaller streams which empty into Lake Superior, are carried to the Atlantic by way of the Great Lakes and the St. Lawrence River. The Red River and its tributaries drain the western and west-central slope northward through Lake Winnipeg into Hudson Bay. The Mississippi River, which flows for nearly 800 miles within and along the borders of the state, has its principal source in Lake Itasca. It is navigable below St. Paul, and above Minneapolis affords facilities for the transport of logs by means of booms. The falls of St. Anthony, St. Cloud, and Little Falls, provide water power for manufacturing purposes. The Minnesota River is its principal tributary within the state. The Red River, having its source in Lake Traverse, forms the western boundary of the state for more than half its distance; its most important tributary is the Red Lake River; both are navigable by vessels of light draft, at high water. A small area in the southern part of the state is drained through the western fork of the Des Moines River. Scattered over the surface of Minnesota are upwards of 10,000 lakes, a number exceeding that of any other state in the Union. The lakes in the north are generally deep, with ragged, rocky shores; those of the south are generally shallow. Red Lake, in Beltrami County, is the largest in the state (area, 342 sq. m.). Other large lakes are Mille Lacs (198 sq. m.), Leech Lake (184 sq. m.), Lake Winnibigashish (85 sq. m.), and Vermilion Lake (66 sq. m.). On the Canadian boundary are Lake of the Woods (650 sq. m.) and Rainy Lake (150 sq. m.), both of which are drained northward into Hudson Bay. Several large lakes, such as Pepin, Traverse, and Big Stone, are river expansions.

Climate. The climate of Minnesota is characterized by a low mean annual temperature, and unusually dry and rarified atmosphere,



with an almost complete absence of damp, foggy weather. The mean annual temperature, according to the reports of the United States Weather Bureau, varies from 45° F. at St. Paul and points in the southern part of the state, to 37° at points in the northeast. The cold increases not only from south to north, but to some extent from east to west. In the southern part of the state killing frosts are rare from early May until late September, but in the north they are not uncommon late in May or early in September. The mean annual rainfall is about 33 inches. The greater part of the state is covered with snow during the winter, the mean fall varying from about 52 in. at points in the northeast to 23 in. in the southwest. In most localities the prevailing winds are northwest in winter and southerly in summer, but at Duluth, on the shore of Lake Superior, they are southwest during November, December, and January, and northeast during the remainder of the year.

Agriculture. The principal industry of Minnesota is agriculture. The soils of the state are generally fertile. In the southern counties and in the valleys of the Red and Minnesota Rivers they consist largely of a dark brown or black sandy loam, the richness of which renders it capable of many successions of crops. In this section cereal crops predominate. Towards the east-central part of the state there is a sandy soil, which is devoted largely to potatoes and similar crops. Large areas of swamp lands in the central and north-central parts of the state, once counted non-arable, have been drained and are now excellent general farming lands. The north-central and northeastern portions of the state are occupied by sandy and gravelly soils

which are frequently too porous to permit the production of the staple crops, and which are either timbered or brush grown. Around the immediate border of Lake Superior there are considerable areas of red clays and clay loams which are being utilized for general farming, dairying, and the production of vegetable crops. Thousands of acres of undrained land await improvement and occupation. The general character of Minnesota agriculture is indicated by the fact that about three-quarters (72.8 per cent) of the total value of crops is contributed by the cereals, and about one-eighth by hay and forage; the remainder (representing 13.4 per cent of the total value) consists mostly of potatoes and other vegetables, and of other forest products. The leading crops (in the order of their importance as judged by value) are: wheat, oats, corn, hay and forage, barley, and potatoes. Both fruit raising and dairying interests are centered principally in the southern half of the state.

Forests. In the northern part of the state are extensive pine forests; oak and other hard woods are found in the great forests of the central part. A state forestry board encourages the growth and preservation of the forests and creates forest preserves. There are also national forest reserves within the state. The supply of both hard and soft woods in Minnesota has materially diminished, but there is still considerable merchantable timber standing.

Fisheries. Stringent game laws of the state for the preservation of game and fish are administered by an efficient state game and fish commission. The fisheries are of great value, are carefully supervised, and systematically replenished by the State Fish Hatchery, at St. Paul, and the Federal Fish Hatchery, at Duluth, in which particular attention is devoted to the fish of Lake Superior.

Minerals. The rock formations of the state furnish building stone of great value, including granite, sandstone, and limestone. The iron mines of the Vermilion and Mesaba Ranges, in the northeastern part of the state, are very valuable, those of the latter being among the most productive in the world. Ore, which in many places is found in an almost pure state, lies at or near the surface, and the process of mining is comparatively simple and easy.

Manufactures. Minnesota has great diversity of valuable natural resources. Its iron ore deposits are the richest in the country. It is one of the great wheat-producing states, and its timber lands are still extensive. The iron mines do not contribute directly to the state's manufactures, because the ore is shipped to eastern blast-furnaces. The wheat-fields and the forests, however, furnish raw materials for the two most important industries of the state. The transportation facilities, both by rail and water, are excellent. St. Paul-Minnesota (Twin-Cities) form one of the most important centers for transcontinental railway traffic, while Duluth,

at the western end of Lake Superior, reports larger shipments by water than any other city on the Great Lakes, and ranks as one of the important ports of the United States. The leading industries of the state (given in the order of value of product) are the manufacture of flour-mill and grist-mill products; lumber and timber products; slaughtering and meat packing; and butter, cheese, and condensed milk.

Education. At the head of the school system is a state superintendent of public instruction, appointed by the governor; there are also county superintendents, and a state high school board which has general supervision of the schools and apportions the state aid. The schools are supported by a state tax, and by the proceeds of a permanent school fund. The public schools include all grades from the primary, district, and rural schools, to the state university. A compulsory education law requires a complete school census, makes poverty no excuse for non-attendance, allows children to be excused from attendance if their bodily or mental condition necessitates it, or if they have finished the work of the eighth grade; and, except in cities of the first and second class, permits children over fourteen to be excused between April 1st and November 1st, if their help is needed "in any permitted occupation in or about the home." A new law regulates prices of text-books, and on the vote of the district or of the school board books may be supplied free or sold at cost. There are state normal schools at Winona, Mankato, St. Cloud, Moorhead, and Duluth. The University of Minnesota, at Minneapolis, is one of the largest and most perfectly organized educational institutions in the country. Other schools for advanced education in Minnesota are Hamline University (Methodist Episcopal), at St. Paul; Macalester College (Presbyterian), at St. Paul; Augsburg Seminary (Lutheran), at Minneapolis; Carleton College (non-sectarian), and St. Olaf (Lutheran), at Northfield; Gustavus Adolphus College (Lutheran) at St. Peter; Parker College (Free Baptist), at Winnebago City; St. John's University (Roman Catholic), at Collegeville; and Albert Lea College (Presbyterian, for women), at Albert Lea.

Government. The state is governed under the constitution adopted in 1857, and its amendments. The qualifications for the suffrage require that the voter be at least twenty-one years of age, and that he shall have been a citizen of the United States for three months prior to the election, and shall have lived in the state for six months and in the election district for thirty days. Women may vote for school officers and members of library boards, and are eligible to any offices pertaining to the management of schools or libraries. **EXECUTIVE.** The state's officers include a governor, lieutenant-governor, secretary of state, treasurer, and attorney-general, elected biennially in November of the even number years; and an auditor elected at the same time for four years. The veto power

of the governor extends to separate items of appropriation bills. **LEGISLATIVE.** The legislative department consists of a Senate and House of Representatives. The legislature meets at St. Paul, biennially, (odd number years), the sessions being limited to ninety days. A majority of all the members elected to each house is required for the passage of a bill, and a two-thirds majority is necessary to pass a bill over the governor's veto. All bills for the raising of revenues must originate in the House of Representatives, but the Senate may propose and concur with amendments, as on other bills. Senators are elected for four years and representatives for two years. **JUDICIARY.** The judicial department comprises a supreme court consisting of a chief justice and four associate justices, elected for terms of six years; and lower courts consisting of district courts, with original jurisdiction in civil cases in law and equity, and in criminal cases upon indictments by grand juries; justices' courts, in which the amount in litigation cannot exceed \$100, and the punishment cannot exceed three months imprisonment, or a fine of \$500; and municipal and probate

courts, with the usual jurisdiction. **LOCAL GOVERNMENT.** The county officers are the county board, prosecuting-attorney, sheriff, coroner, clerk of court, auditor, treasurer, and surveyor, all elected by the people.

History. Before the coming of Europeans, Minnesota was occupied by two powerful Indian tribes, the Ojibways (or Chippewas), who occupied the northern portion and the region along the Mississippi River, and the Sioux (or Dakotas), who made their homes in the south and west. The region was first explored by the French near the end of the 17th Century. That part of Minnesota which lies east of the Mississippi River belonged to the Northwest Territory, acquired by the United States in 1783. West of the Mississippi, it was a part of the Louisiana Purchase of 1803. In 1837, the Chippewa Indians surrendered all the land east of the Mississippi. Immigration then began, and Minnesota became a territory in 1849, and a state in 1858. In 1862 occurred a terrible massacre by the Sioux Indians, who in ten days killed some 800 persons.

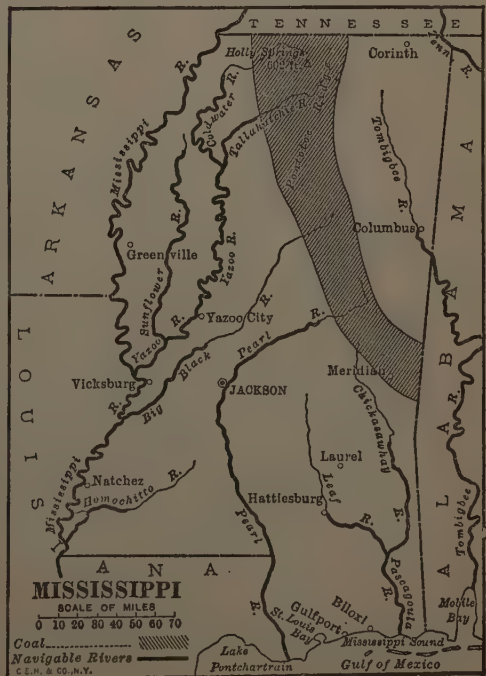
MISSISSIPPI

MISSISSIPPI, one of the East South-Central states of the Union, lies between latitudes 30° 44' and 35° N., and longitudes 88° 7' and 89° 31' W. It is bounded on the N. by Tennessee; on the E. by Alabama; on the S. by the Gulf of Mexico and Louisiana; and on the W. by Louisiana and Arkansas. The state has an extreme length of about 300 m. from N. to S., and an extreme width of about 160 m., and ranks thirty-first in area (46,865 sq. m., of which 503 sq. m. are water surface) among the states of the Union.

Coast. The coast line, slightly over 80 m. long, is bordered by a beach of white sand, and broken by a number of shallow indentations, among which are St. Louis, Biloxi, and Pascagoula Bays. Separated from the coast by the shallow Mississippi Sound is a chain of low sand islands, the largest of which are Petit Bois, Horn, Ship, and Cat.

Relief. The greater portion of the state lies within the area of the Gulf Coastal Plain. Along the Gulf coast is a low marshy tract, and to the north of this is the great level pine region (or "cow country") which at one time covered the greater part of the southern third of the state. That portion lying between the Yazoo and the Mississippi Rivers is known as the Yazoo Delta. It consists of alluvial bottom lands and covers an area of about 7,000 sq. m. (four and one-half millions of acres). With the exception of a few flat ridges running from north to south, it is so low that it has been necessary to protect it from overflows by a strong unbroken line of levees averaging fifteen feet in height. Along the eastern border of this Delta and southward along the Mississippi, runs a belt of hills or bluffs known as the "cane-hills." This high-

land belt is deeply broken by water-worn ravines, and, though very narrow in the north, the belt has in the south an average width of about twelve miles. The highest elevations in the state,



from 600-700 ft. above the sea, are on the Pontotoc Ridge in Tippah and Union Counties, and from this ridge there is an almost imperceptible slope to south and west. Along the margins of valleys there are hills rising from 30-120 ft., but away from the water courses the differences in elevation are slight.

Drainage. A small area in the northeastern part of the state is drained to the Tennessee. Most of the northeastern portion is drained by the Tombigbee. The Pontotoc Ridge separates the drainage system of the Mississippi from that of the Tombigbee. This ridge, extending southward from the northeastern part of the state, divides in Choctaw County, the eastern branch separating the drainage basin of the Pascagoula from that of the Pearl, and the western branch separating the drainage basin of the Pearl from that of the Big Black and the Mississippi. The Pearl and the Pascagoula Rivers drain most of the southern portion of the state and flow into the Gulf. The Delta is drained chiefly by the Yazoo. Each of the larger rivers has many small tributaries; their fall is usually gentle and uniform. The valleys vary in width from a few hundred yards to several hundred miles, and in the eastern part of the state much of the valley of each of the larger streams is several feet above the stream's high-water mark, and forms the "hommock" or "second bottom" lands. Many of the rivers flowing into the Gulf are obstructed by sand bars and navigable only during high water from January to April. A few small lakes and bayous are found in the Delta section.

Climate. The greater part of the state lies in the subtropical belt, and has a climate marked by high summer and annual temperatures, and by mild winters. The normal annual temperature of the state is 64° F.; on the coast it is 67°, and on the northern border 61°. During the summer temperatures are affected as much by altitude as by latitude, and the coast is cooled by night by breezes from the Gulf. The July mean is 82° F. in the southern part of the state, and 83° in the west-central part. The normal annual precipitation for the southern part of Mississippi is 54 in., and for the northern part about 49 inches. An average of 4 in. of snow falls in the northern part, but south of Natchez snow is seldom seen. The prevailing winds are from the southeast, but the rain bearing winds are chiefly from the southwest, and the high winds from the northwest and west.

Agriculture. The most fertile soil is the alluvium of the Delta, and others that are exceedingly productive are the black calcareous loam of the prairies in the northeastern part of the state. The less valuable soils are the yellow loam of the hills in the northeast, and the sandy loams in the pine belt of the south. Of the state's entire land area more than three-fifths is in farms. The percentage varies widely in the different counties, but the most common proportion is 60 to 80 per cent. For the state as a

whole, the average value of farm land per acre is \$13.69. Statistics show a slight increase in farm acreage and a much greater increase in the number of farms,—a fact which indicates that the average size of farms is decreasing. The total value of farm property, which includes that of land, buildings, implements and machinery, and live stock indicates an increase of nearly 110 per cent in the past ten years. The average size of a Mississippi farm is 67.6 acres, as compared with 308.9 acres in 1850. The leading crops, ranked in the order of their importance as judged by value, are: cotton, corn, forest-products, all forms of vegetables (other than sweet potatoes and yams), hay and forage, oats, dried peas, and potatoes, including sweet potatoes and yams. The acreage of cotton is about one and one-half times as great as that of the combined cereals, and its value is considerably more than three times as great. Corn is the leading cereal, this crop constituting more than 95 per cent of the total acreage and value of the combined cereals. Sugar-cane is grown principally in the southern part of the state, but sorghum cane is grown to some extent in nearly every county of the state. Great advance has been made in the growth of market-garden products and small fruits, and in the cultivation of orchard trees and grape-vines.

Forests. In the extreme south most of the merchantable timber has been cut, but north of this there are still large quantities of valuable long-leaf pine. In the marshes of the Delta is much cypress, on the rich upland soil are oak and red gum, also cotton wood, hickory, and maple.

Fisheries. Fishing is a minor industry confined for the most part to the Mississippi Sound and its waters, and to the Mississippi and Yazoo Rivers. The most valuable is the oyster fishery on the reefs in the sound. Shrimp fishing is also of economic importance.

Minerals. The mineral wealth of the state is limited. The state contains deposits of iron, gypsum, marl, phosphate, lignite, ochre, glass-sand, tripoli, fullers' earth, limestones and sandstones, and there are small gas flows in the Yazoo Delta, but there is no mining enterprises. Large quantities of mineral water, sulphur, chalybeate, and lithia, are bottled at several points.

Manufactures. The transportation facilities are good, as the state has direct connections with several large railroad systems of the Middle West. It is bordered practically its entire length by the Mississippi River, and the proximity to the port of New Orleans by means of this river places the state in a favorable position for domestic or foreign shipments. Though Mississippi is not preëminently a manufacturing state, its manufactures have somewhat more than kept pace with the growth of population. During 1849-50 only 0.5 per cent of the total population was employed in manufactures, while in 1880 2.8 per cent of the total population were so en-

gaged in 1910. The most important industries (arranged in the order of value of products) are: lumber and timber products, cottonseed-oil and cake, cars and general shop construction and repairs by steam railroad companies, cotton goods, fertilizers, turpentine, and rosin.

Education. The public schools of Mississippi are subject to the supervision of a state superintendent of public education, and of a state board of education, composed of the superintendent, the secretary of state, and the attorney-general; and within each county of a county superintendent. The schools are supported by a poll-tax, by general appropriations, by the Chickasaw school fund, and by local levies. There is no law for compulsory attendance at school; white and colored children are taught in separate schools, but the equipment and service are approximately equal. Among the institutions for higher learning are: the University of Mississippi (coeducational) at Oxford; the Agricultural and Mechanical College near Starkville, in Oktibbeha County; the Mississippi Industrial Institute and College for girls at Columbus; and the Alcorn Agricultural and Mechanical College for negroes at Westside. The state normal and training school for teachers is at Hattiesburg.

Government. The present constitution of Mississippi was adopted in 1890. In addition to the ordinary suffrage qualifications as to age, sex, and residence, the voter must have paid all taxes due from him for the two years immediately preceding the election, and he must be able to read any section of the constitution or be able to explain the same when read to him, or give a reasonable interpretation thereof. **EXECUTIVE.** The chief executive officials are: the governor, lieutenant-governor, secretary of state, treasurer, auditor, attorney-general, and superintendent of education, all of whom are chosen

for terms of four years. The governor, treasurer, and auditor, are ineligible for immediate reelection. The governor may call extraordinary sessions of the legislature, may grant pardons and reprieves, and may exercise a power of veto which extends to items in appropriation bills; a two-thirds majority of the legislature is necessary to pass a bill over his veto. His appointing power is limited, as nearly all officials, except judges, are elected by popular vote. **LEGISLATIVE.** The legislature consists of a Senate and House of Representatives, chosen for four years. It meets at Jackson biennially (odd number years), and is unrestricted as to length of session. **JUDICIARY.** The judiciary consists of a supreme court of three judges, thirteen circuit courts, seven chancery courts, county courts, and justices of the peace courts. The governor, with the consent of the senate, appoints supreme court judges for a term of nine years, and circuit and chancery judges for four years. **LOCAL GOVERNMENT.** The local judiciary officers are the county board of supervisors of five members, and the justices of the peace. Other county officials are the sheriff, treasurer, coroner, surveyor, assessor, and the superintendent of education.

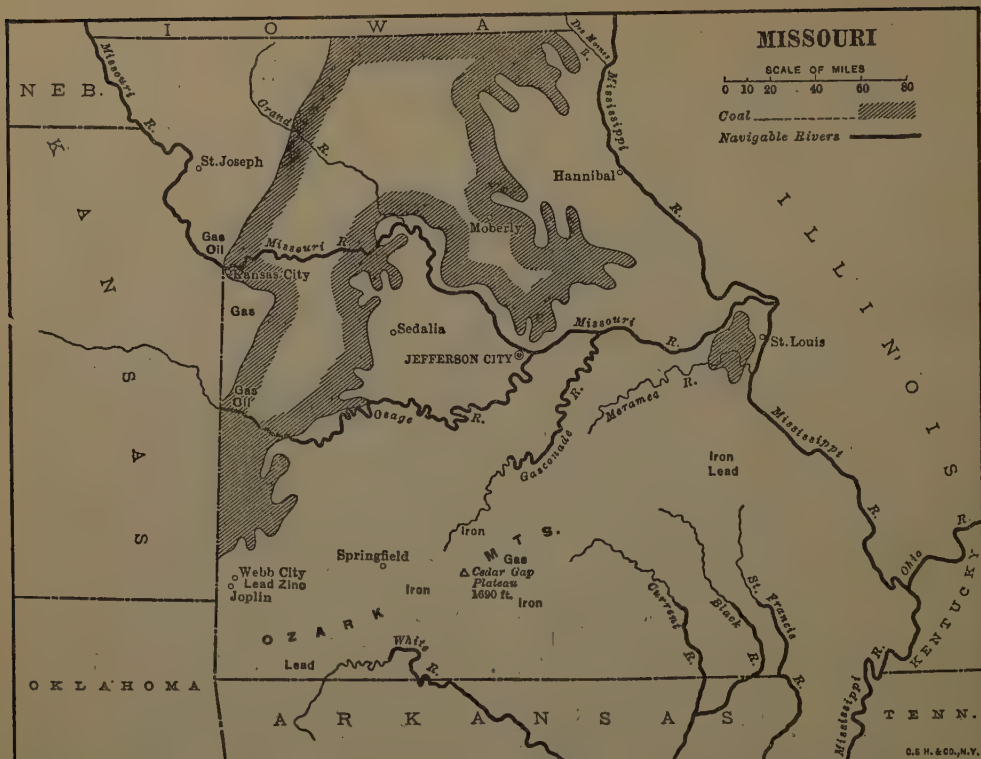
History. Mississippi was visited by De Soto in 1540. The Mississippi River was explored by Marquette and La Salle in 1681. An attempt was made at settlement by the French at Iberville in 1699, and a settlement was made on the site of Natchez in 1716. It was ceded by France to Great Britain in 1763, part was ceded to the United States in 1783, and the remainder was acquired in 1811. Mississippi was organized as a territory in 1798, and was admitted to the Union as a state in 1817. It seceded in 1861 and was readmitted into the Union in 1870. It was the scene of various conflicts in the Civil War, including the Siege of Vicksburg in 1863.

MISSOURI

MISSOURI, a West North-Central State of the United States, lies mainly between latitudes 36° 30' and 40° 35' N., and longitudes 89° 10' and 95° 48' W. Much of the western boundary is the meridian of 94° 43' W. It is bounded on the N. by Iowa; on the E. by Illinois, Kentucky, and Tennessee; on the S. by Arkansas; and on the W. by Oklahoma, Kansas, and Nebraska. The length of the state from north to south, counting the southeastern projection, is 328 m.; without the southeastern projection it is 282 miles. The width from west to east varies from 208 to 308 miles. In size, Missouri ranks eighteenth among the states of the Union (having a gross area of 69,420 sq. m., of which 693 sq. m. are water surface).

Relief. Missouri has three chief physiographic regions: a lowland in the extreme southeast, a northern upland plain or prairie region, and between these the Ozark uplift region. North of the Missouri River is the prairie region

of the state, a beautiful rolling country with a great abundance of streams, more hilly and broken in its western than in its eastern half. It has a general elevation above the sea of about 850 ft., ranging from 500 ft. along its eastern margin to 1,200 ft. in the northwest. South of the Missouri River the surface is more diversified. It embraces open and comparatively treeless plains in the western counties, continuous with the prairies of Kansas. To the east of this limited plains section of the state lies the great Ozark Region, occupying nearly two-thirds of the total area of Missouri. Its southeastern boundary may be indicated by a line drawn from Cape Girardeau due southwest to the Arkansas boundary. This physiographic region is divided by minor escarpments into ten or twelve subregions. As a whole, it is in reality, a rolling plateau, much broken by erosion, but with numerous undissected areas drained by underground channels. It is domi-



nated by a ridge, or a belt of highland, that runs from the Mississippi at about Ste. Genevieve County, to Barry County on the Arkansas border, and is continued into Arkansas, in which state it attains its greatest elevation. The highest points in the state are Iron Mountain (about 1,110 ft.), in Iron County, and Cedar Gap Plateau (1,690 ft.), in Wright County; but few localities have an elevation exceeding 1,400 feet. Rather broad, smooth valleys, hills with rounded summits, and generally uniform contours characterize the whole of this Ozark Region. The extreme southeastern part of the state is a lowland area, in places marshy, but for the most part well drained and well timbered. Caves, chiefly of limestone formation, occur frequently in and near the Ozark Mountain Region in the southwestern part of Missouri. More than one hundred are found in Stone County alone, and there are many in Christian, Greene, and McDonald Counties. Of these caves, the most remarkable is Marble Cave in Stone County.

Drainage. The entire eastern boundary is washed by the Mississippi River, with a water front of 560 miles. The general drainage of the surface is indicated by long gentle slopes toward the Mississippi and Missouri Rivers, except in the southwest, where the streams flow into the

Arkansas. The Missouri forms the western boundary for a distance of 208 m., and entering the state at Kansas City, crosses it and empties into the Mississippi north of St. Louis, its length between the eastern and western borders being 430 miles. The drainage of the state is wholly into the Mississippi, either directly or indirectly. By means of the Mississippi and the Missouri, the state has water connection with the Gulf of Mexico, and with almost every state in the Mississippi Valley. Of the minor streams within the state, the Osage, Grand, Meramec, Salt, Gasconade, White, St. Francis, and Current, have had or have some value as navigable streams. The Mississippi is skirted with lakes, lagoons, and morasses, from Ste. Genevieve to the Arkansas border, and in places is confined by levees.

Climate. The inland position of the state gives to it a climate of marked continental type, with wide range of moisture and temperature. The mean annual temperature for the entire state is 54°, for the southeastern corner 60°, and for the northwestern 50° F. At Jefferson City there are occasionally two months of freezing weather; and at Rockport three months. Temperatures as high as 100° to 105° and as low as -20° or -30° are recorded locally almost every year. At St. Louis, where the summer heat at

times reaches 105° to 110° the winter cold sometimes falls to -10° and even to -20° F. The average yearly rainfall, for the state as a whole, is 41 to 60 inches. The prevailing winds are southerly, although west winds are common in winter. The average fall of snow ranges from about 8 in. in the southeast counties to about 28 in. in the northwest counties. The Missouri River is often closed by ice, and the Mississippi at St. Louis sometimes freezes over so that for weeks together horses and wagons can cross on the ice. The state lies in the path of cyclonic storms.

Agriculture. The soils of the state as a whole are rich, deep, and unsurpassed in variety and productiveness. The northern half of the state is well watered and extremely fertile. South of the Missouri the Prairie Region, along the western border, shares the characteristics of the country north of the Missouri. The Ozark region is more noted for its mineral than its agricultural production, but some of its small valleys contain excellent agricultural soils. The southeastern lowlands are rich to an exceptional degree. Missouri as a whole, is preëminently an agricultural state. The leading crops (in the order of their importance as judged by value) are: corn, hay and forage, wheat, oats, potatoes, and cotton. The raising of live stock, especially of horses, mules, and swine, is a great and growing industry. The dairy and poultry interests are extensive. Orchard fruits, small fruits, and grapes are produced in large quantities. Missouri is one of the great wine-producing states of the country.

Fisheries. The fisheries of the state are under the direction of a state fish commission, which endeavors to increase the common varieties of river fish. So far as they are articles of general commerce they come, like frogs, terrapin, and turtles, mostly from counties of the Embayment Region. The mussel fisheries are commercially important, as the shells are used in the manufacture of pearl buttons. There are state fish hatcheries at St. Louis and St. Joseph.

Forests. The most valuable forests are in the southern half of the state. The finest woods are on the eastern upland, and on the Mississippi lowland. Ash, oaks, black-gums, sweet-gums, chestnut, hickories, hard maple, beech, walnut, and short-leaf pine are noteworthy among the trees of the Carolinian area; the tupelo and bald cypress of the Embayment Region; and long-leaf and loblolly-pines, pecans, and live-oaks, of the uplands. The heavy timberlands of the entire state have already been considerably exploited.

Minerals. The mineral resources are exceedingly rich, comprising coal fields that cover more than 20,000 sq. m.; also fine deposits of iron ore, lead, and zinc, while copper, cobalt, nickel, fire-clays, fine marble, granite, and limestone abound. Missouri is the largest producer in the Union of tripoli and barites. Mineral waters occur widely.

Manufactures. Missouri ranks high as a manufacturing state, its prominent position in this respect being largely due to its agricultural and mineral wealth, to its excellent transportation facilities by both water and rail, and to the location of cities in close proximity to raw materials. St. Louis, St. Joseph, and Kansas City are the great manufacturing centers of the state. Measured by value of products, the leading industry of the state is slaughtering and meat packing. The prominence of this industry is owing to the facts that Missouri is the center of a hog raising area, is one of the great corn growing states, and has extensive feeding and grazing areas for cattle in the prairies of northern Missouri and for sheep in the Ozarks of southern Missouri. The manufacture of boots and shoes is second in importance among the industries of the state, and holds the same rank with respect to the other states of the Union. While holding second rank as regards value of product, it is first in the number of wage-earners employed. Third among the industries of the state in the value of products are flour-milling and grist-milling. The fourth place among the industries of the state is occupied by printing and publishing. This includes the making of books, newspapers, periodicals, and music. Brewing, lumbering, and the manufacture of timber products, are among the great industries. The logging and milling operations are confined largely to the wooded Ozark Region of southern Missouri, but many of the planing-mills and box factories are located in cities; with the exception of the boot and shoe factories, this industry gives employment to more persons than any other industry.

Education. The maintenance of a free public school system was placed on a broad and firm foundation by the constitution of 1875. The state schools include, besides primary, graded, and high schools, normal schools and a state university. School attendance is compulsory for children from eight to fourteen years of age, for not less than three-quarters of the school term. The public schools are under the supervision of a state superintendent of education. The University of Missouri, at Columbia, comprises in addition to the college proper special schools of pedagogics, agriculture and mechanic arts, mines and metallurgy, law and medicine, fine arts, engineering, military science, a graded school of arts and sciences, and a department of journalism. An experiment station, supported by the national government, is part of the school of agriculture. The State Board of Agriculture organizes farmers' institutes, and agriculture is also taught in the normal schools of the state. Of these there are five, located at Kirksville, at Warrensburg, at Cape Girardeau, at Springfield, and at Maryville, and there is a normal department in connection with the Lincoln Institute for Negroes, at Jefferson City. Lincoln Institute for negro men and women has agricultural and industrial,

special normal, normal, and collegiate departments. Among privately endowed schools the greatest is Washington University (non-sectarian), in St. Louis. Among many other educational institutions are the St. Louis University and Christian Brothers College (both Roman Catholic), at St. Louis; William Jewell College (Baptist), at Liberty; Missouri Wesleyan College (Methodist Episcopal), at Cameron; Park College (Presbyterian), at Parkville; Drury College (Congregational), at Springfield; Tarkio College (United Presbyterian), at Tarkio; and Central Wesleyan College (Methodist Episcopal), at Warrenton. There are many minor schools and colleges, most of them being coeducational, and special academies and colleges for women, are maintained by different sects. There are numerous professional schools, most of them at St. Louis and Kansas City.

Government. Missouri is governed under the constitution of 1875 and its amendments. The right of suffrage extends (with the usual exceptions) to all male citizens, and to aliens who five years before election have declared their intention of becoming citizens, but all who vote must have been resident in the state one year, and in the county or city sixty days next preceding the election. **EXECUTIVE.** The chief executive officers of the state are the governor, lieutenant-governor, secretary of state, auditor, treasurer, attorney-general, and superintendent of education. The term of the governor and other chief executive officers is four years. **LEGISLATIVE.** The legislature, or General Assembly, is composed of a Senate and a House of Representatives. It meets biennially (odd number years), at Jefferson City. Its sessions are limited to seventy days. Senators are elected for four years, and representatives for two years. **JUDICIARY.** The state judiciary

comprises a supreme court of seven members, elected for terms of ten years; three courts of appeal with three judges, each elected for terms of twelve years; thirty-seven circuit courts with fifty-six judges, elected for terms of six years. **LOCAL GOVERNMENT.** The unit of local government is the county, of which the principal officers are a probate judge, prosecuting-attorney, sheriff, coroner, clerk of court, county clerk, county assessor, county treasurer, county surveyor, and superintendent of schools, all elected by the people. The township system may be adopted by county option, but it has not been widely established, though purely administrative townships are an essential part of state administration.

History. The territory included in the present state of Missouri formed part of the French colony of Louisiana. Ste. Genevieve was settled in 1735, and Ft. Orleans, on the Missouri River, had been temporarily established in 1720, but little had been done in the way of settlement before the transfer of Louisiana to Spain in 1763. St. Louis was founded in 1764. It was ceded back to France in 1800; formed part of the Louisiana Purchase of 1803; and was included in Louisiana Territory in 1805. Missouri Territory was formed in 1812, and Missouri was admitted to the Union as a slave state in 1821. The state did not receive its exact present limits until 1835. In the Kansas troubles of 1855, the citizens of the western border took an active part against the free state movement. At the outbreak of the Civil War, in 1861, the people of Missouri were divided with regard to secession, but the unionists finally prevailed. The state was the theatre of several active campaigns during the war. A world's fair was held in St. Louis in 1904 to commemorate the Louisiana Purchase.

MONTANA

MONTANA, a Mountain State of the United States, lies between latitudes $44^{\circ} 26'$ and 49° N., and longitudes 104° and $116^{\circ} 1'$ W. It is bounded on the N. by the Canadian provinces of British Columbia, Alberta, and Saskatchewan; on the E. by North and South Dakota; on the S. by Wyoming and Idaho; and on the W. by Idaho. It has an extreme length from east to west of 580 m., and an extreme width from north to south of 315 miles. In gross area it ranks third among the states of the Union (146,997 sq. m., of which 796 sq. m. represent water surface).

Relief. The eastern two-thirds of Montana lies within the Great Plains Region, the western third is occupied by ranges of the Rocky Mountain System. The Great Plains section of the state consists of a high-ridged bluff, across which the Missouri River and its principal tributaries have cut broad valleys and deep gorges. The main range of the Rocky Mountains enters the state from Canada as the main divide, extends in a southeasterly direction for about 200 m.,

and then curves westward until it reaches the western boundary of the state, at the junction of the Bitter Root Mountains with the main chain. The Bitter Root Mountains form about half of the western boundary. This range has a maximum elevation at its southern end of about 9,000 ft. above the sea. To the east and northeast of the Bitter Root Mountains is a considerable area of moderate relief traversed by numerous short ranges, to the southeast of which are many lofty and rugged ranges which radiate in all directions, and in many instances rise to heights of 10,000 to 11,000 feet. The highest point in the state is Mount Douglas (11,300 ft.) in Sweet Grass County. The Great Plains in Montana slope from about 4,000 ft. above the sea at the foothills of the mountains to an elevation of 2,000 ft. in the northeast of the state.

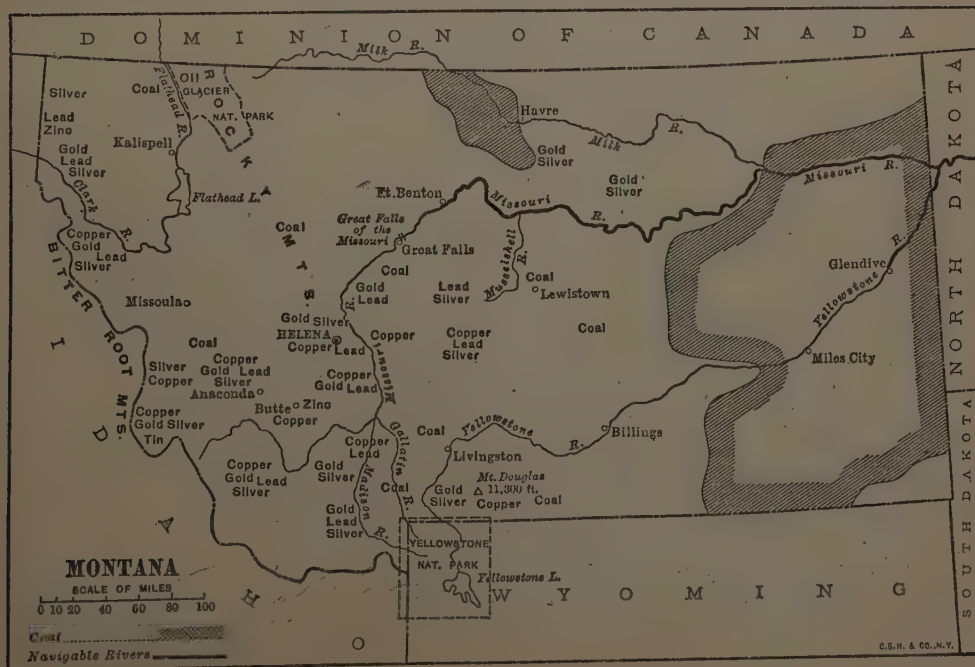
Drainage. The main range of the Rocky Mountains separates that part of the state which is drained west into the Columbia River and the

Pacific Ocean, from that which is drained east into the Missouri and Mississippi Rivers and the Gulf of Mexico, and from a very small part which is drained northeast into Hudson Bay. The principal rivers east of the Rockies are the Missouri and its tributaries, the Milk, the Musselshell, and the Yellowstone. The Missouri is formed by the union of the Jefferson, the Madison, and the Gallatin Rivers, or Forks, which rise in the Rocky Mountains and unite in Gallatin City. About 16 m. east of Helena the Missouri River passes through a deep canyon or gorge 5 m. long, where the scenery is sublime and imposing. At Great Falls are the Great Falls of the Missouri, where the river descends over 500 ft. in 10 m. by a series of cataracts, the highest of which has a perpendicular fall of about 90 feet. Forty miles below the Great Falls is Fort Benton, the head of steamboat navigation, and from there the general course of the Missouri is eastward until it enters North Dakota. The Missouri is a muddy stream, with a generally erratic and frequently shifting channel. The Yellowstone, the principal tributary of the Missouri, enters the state from the Yellowstone National Park, runs northward through a mountainous country, then northeastward through the plains, and enters the Missouri a short distance east of the North Dakota boundary. Its mouth is about 2,000 ft. above sea level. During high water steamboats can ascend it to the mouth of the Big Horn, 300 m. or more. The principal

rivers west of the main divide of the Rockies are the Clark Fork of the Columbia and its principal tributary, the Flathead, which rises in British Columbia. Small lakes and waterfalls are numerous in the mountains, the largest lake in the state being Flathead, or Selish Lake, about 27 m. long and more than 1,000 ft. deep.

Climate. The mean annual temperature ranges from 37° F. in the northeast to 47° F. in the valleys among the mountains. On the Great Plains a temperature of -40° in the winter and 100° F. in the summer are not unusual, but in the mountain valleys the range is rarely greater than from -20° to 90° F. In the east the winters are often long and very cold, and the summers dry and hot. In the west the climate is generally delightful, it being there greatly affected by the warm Chinook wind, which blows from the Pacific Ocean. This is the prevailing wind of winter in the mountains and in consequence the periods of cold, though severe, are short. The average annual precipitation ranges from 10 to 15 in. on the Great Plains, to 20 in. or more in the northwest, and over limited areas in the higher mountain region. Nearly one-half of the rain falls during the growing months from May to August, inclusive.

Agriculture. A considerable amount of land, lying principally in the valleys of the mountainous region which occupies the southwestern and central parts of the state, is under irrigation. The plains are devoted very largely to



dry farming and to the cattle industry. In nearly all sections of the state, however, by means of intensive cultivation and summer fallowing, grain can be grown without irrigation. A small section in the northwest corner of the state receives sufficient rainfall to be classed as humid. The leading crops of the state (in the order of their importance as judged by value) are: wheat, hay and forage, oats, flaxseed, and potatoes. Flaxseed has an important acreage, greater than that of barley. Fruit is now very widely cultivated in the state. The raising of sheep, cattle, and other live stock is important, the east being devoted chiefly to that industry. Montana has more sheep and produces more wool than any other state in the Union.

Forests. Much of the woodland area has been burned over. Woodlands are confined mainly to the mountain slopes, and more than three-fourths of the forest areas have been set apart as national forests. A large part of the woodland contains no trees fit for lumber. More than half of the product is yellow pine and the remainder principally red fir and tamarack. Hardwood timber is almost entirely lacking in the state.

Minerals. Montana has great mineral resources, and mining is the leading industry of the state. It contains the largest copper producing district in the world. The most important copper mines are in Silverbow, Broadwater, Jefferson, and Beaverhead Counties. The other mineral products (arranged in the order of their importance as judged by value) are: silver, coal, and gold. Lignite coal beds underlie the eastern half of the state. In the mountain districts are the bituminous coal beds. Granite, sandstone, and limestone are abundant in the state, but have been little developed.

Manufactures. As a manufacturing community, Montana makes some progress, but the leading industries of the state are those connected with or supplementary to the mining interests. In the order of value of products, the chief manufacturing industries are: copper smelting and refining, lumber products, malt liquors, and flour- and grist-mill products.

Education. At the head of the public school system is a state superintendent of public instruction. In each county there is a county board of education and a county superintendent. The common school of each district is under the immediate supervision of a board of trustees, but a state text-book commission determines what text-books shall be used in the schools. Each school district is required by law to keep its school open at least three months a year, and all children between the ages of eight and fourteen are required to attend for the full term; if unemployed they are required to remain in school until they have attained the age of sixteen. Manual and industrial training is a part of the public school curriculum, and school districts with a population greater than 5,000 must (others may) establish one manual train-

ing school. The leading state educational institution is the University of Montana, at Missoula, and associated with it are the Normal College, at Dillon; the College of Agriculture and Mechanic Arts, at Bozeman; and the School of Mines, at Butte. The entire educational system is maintained very largely out of funds derived from land appropriated by Congress for that purpose.

Government. The state is governed under a constitution adopted in 1889, and its amendments. General suffrage is conferred upon all male and female citizens of the United States who have attained to the age of twenty-one years, have lived in the state for one year, and in the county for thirty days immediately preceding election. Excluded from the suffrage are idiots, insane persons, felons not pardoned, Indians who have not severed tribal relations, and soldiers, sailors, and marines in the United States service. **EXECUTIVE.** The chief executive officers of the state are the governor, lieutenant-governor, secretary of state, attorney-general, treasurer, auditor, and superintendent of public instruction—each of whom is elected for a term of four years. No person is eligible to any of these offices who has not lived within the state for two years next preceding the election. The governor, lieutenant-governor, and superintendent of public instruction must be at least thirty years of age; the secretary of state, treasurer, and auditor at least twenty-five years of age. The governor appoints various administrative officers, subject to the approval of the Senate. His pardoning power is subject to the approval of a majority of the board of pardons. His veto may be overridden by a two-thirds vote of the members present and voting in each house. **LEGISLATIVE.** The legislature consists of a Senate and House of Representatives. Except when called in special session by the governor, it meets at Helena on the first Monday of January in odd number years only, and the length of its session is limited to sixty days. Members of the Senate, one from each county, are elected for a term of four years; representatives, one or more from each county, according to population, are elected for a term of two years. A senator must be at least twenty-four years of age and have resided in his county or district for at least one year next preceding his election. The qualifications required for a representative are the same as those required for the suffrage. **JUDICIARY.** Justice is administered by a supreme court, an increasing number of district courts, and at least two justice's courts in each organized township, besides police and municipal courts. The supreme court is composed of a chief justice and two associate justices, elected for a term of six years. For most district courts there is only one judge, but for the more populous districts there are two; they are all elected for four years. Justices of the peace are elected for two years. **LOCAL GOVERNMENT.** For purposes of local government the state is divided

into counties; each county into townships, school districts, and road districts; and there are incorporated cities and towns. The county officers are a board of three commissioners, a treasurer, a sheriff, a county clerk, a clerk of the district court, an attorney, a surveyor, a coroner, a public administrator, an assessor, a superintendent of schools, and in some instances an auditor. The principal township officers are two justices of the peace and two constables. Municipal corporations are classified according to population: cities having 10,000 inhabitants or more are of the first class; those having more than 5,000 but less than 10,000, are of the second class; those having less than 5,000 but more than 1,000, are of the third class; and those having less than 1,000 but more than 300 inhabitants are towns.

NEBRASKA

NEBRASKA, one of the West North-Central States of the United States, lies between latitudes 40° and 43° N., and longitudes 95° 10' and 104° 4' W. It is bounded on the N. by South Dakota; on the E. by Iowa and Missouri; on the S. by Kansas and Colorado; and on the W. by Colorado and Wyoming. The extreme length of the state from east to west is about 425 m., and the extreme breadth from north to south 210 miles. In gross area, (77,520 sq. m., of which 712 sq. m. represent water surface) Nebraska ranks fifteenth among the states of the Union.

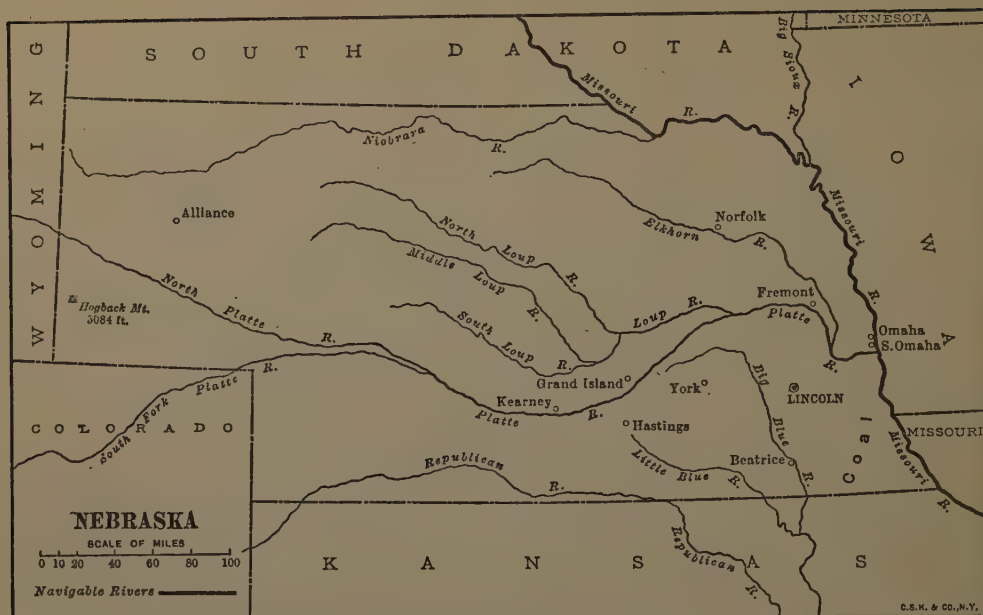
Relief. Nebraska lies in the Prairie Plains and Great Plains provinces of the United States, only about one-fifth of its area being included in the former division. The surface slopes gently eastward and southeastward from an altitude of approximately 5,000 ft. in the extreme western portion of the state, to an altitude of about 900 ft. in the southeast. There are three physiographic subdivisions—the Prairies, the Sand Hills, and the Foot Hills (including the Bad Lands). The eastern portion of the state is rolling and somewhat dissected by the major drainages. High bluffs, cut by ravines, border the Missouri. Between the meridians of 98° and 103° W. longitude, including an area of approximately 20,000 sq. m., is the Sand Hills portion of the state. The present contours of these hills are wholly the result of wind action; formerly shifting dunes, they have as a result of occupation and the cessation of prairie fires become well sodded and stable. All about, interpenetrating the Sand Hills region and the Foot Hills region beyond, are the prairies, which include three-fourths of the state. They are usually gently rolling, but sometimes flat over wide areas. The water partings are level uplands, often with shallow depressions, some of them filled by lakes. Western Nebraska is much more rugged than western Kansas, and the highlands found there are the outliers or

History. The portion of Montana east of the Rocky Mountains was part of the Louisiana Purchase (1803); that to the west was part of Oregon and Washington. It was first visited by the French in 1742, and by Lewis and Clark in 1804-'06; these explorers were followed by fur traders and trappers and by Jesuit missionaries. The part of Montana which was included in the Louisiana Purchase became successively a part of Missouri Territory (1812), of Nebraska Territory (1854), of Dakota Territory (1861), and of Idaho Territory (1863); that which lies west of the mountains became successively a part of Oregon (1848), of Washington Territory (1853), and of Idaho Territory (1863). Gold was discovered in 1861. In 1864, the territory was organized and in 1889 Montana became a state of the Union.

foothills of the Rocky Mountains. In the fork of the North and South Platte are the Wildcat Mountains with summits rising to over 5,000 feet. Pine Ridge, a line of low hills and bluffs, often precipitous, passes across the northwest corner of Nebraska from Wyoming into South Dakota; its altitudes vary from 3,500 to 5,000 feet. This region is known as the Mauvaises Terres (or Bad Lands). The surface is carved out into fantastic cliffs and buttes, bare of vegetation and baked by the sun.

Drainage. The Missouri skirts the eastern border for nearly 500 miles. It is not navigated, and, save at Omaha and Sioux City, serves practically no economic purpose. Its current is always rapid and heavily loaded with sediment, and its axis frequently shifts. Besides the Missouri, the principal rivers are the Niobrara, the Platte (with its North and South Forks), the North, Middle, and South Loup, the Elk Horn, Lodge Pole Creek, the Republican, the Saline, and the Big and Little Blue Rivers. The Niobrara rises in Wyoming, traverses the sterile Sand Hills of northern Nebraska, and enters the Missouri about 36 m. west of Yankton, South Dakota. The Platte River, a wide shallow stream, is formed by the North and South Forks, which rise among the Rocky Mountains in Colorado and unite in Lincoln county. It traverses the vast undulating plains of Nebraska, and enters the Missouri about one mile above Plattsmouth. It is about 450 m. long, or including the North Fork, 1,250 miles. The Republican River, an intermittent stream, drains the extreme southern part of the state. Numerous lakes, both fresh and alkaline, are scattered about the heads of streams in the Sand Hills. Nearly all counties have a practically inexhaustible supply of ground water. In some small and exceptional regions, the water is alkaline.

Climate. The climate of Nebraska is characterized by winters of considerable severity,



unusually warm summers, marked and sudden changes of temperature, large seasonal and daily temperature changes, and dry, salubrious atmosphere with a large percentage of sunshine. The range of the mercury is between -40° and 115° F. The rainfall is very unequal, ranging from 30 in. or more in the eastern section, to less than 15 in. in the west, where irrigation is a necessary condition to successful agriculture. The average annual rainfall for the state is about $23\frac{1}{2}$ inches.

Agriculture. The prevailing soil of the Upland Prairies in the eastern part of the state is a dark brown silty loam. To the west of this is an area covered by brown and yellow silty loam soils. In the north-central portion of the state, north of the Platte River, is the Sand Hills region, with many small, level, sandy prairies. Here grazing is the prominent agricultural occupation, although many of the more level tracts are coming to be occupied for dry farming. The soils along the northern border of Nebraska are heavy loams and clay loams, suited to grazing and dry farming. The prairies of the extreme western portion of the state are occupied by loams and sandy loams, which support the wild grasses and constitute chiefly a grazing area. Agriculture is the chief industry of the state, 78.6 per cent of its area being in farms. In the extreme western part of the state irrigation is practised to a considerable extent. The general character of Nebraska agriculture is indicated by the fact that nearly four-fifths (78.3 per cent) of the total value of crops is contributed by the cereals, and 16.2 per cent by hay and forage. The remainder is contributed by vege-

tables, fruits, and minor crops. The leading crops (in the order of their importance as measured by value) are: corn, wheat, hay and forage, oats, potatoes, barley, emmer, spelt, and rye. The raising of flowers and plants and of nursery products is of some importance, the cultivation of small fruits and of orchard fruits is increasing, and the live stock interests are of great importance. Apples are raised in the northeastern and southeastern portion of the state. Peaches are successfully grown.

Forests. No state has done more than Nebraska for the forestation of its waste and prairie lands. Arbor Day (the 10th of April) was instituted by the Nebraska State Board of Agriculture in 1872, and has been yearly observed by the public schools of the state since that time. Forest reserves have been established and millions of seedlings have been planted on the Great Plains. Small woods of broadleaf trees and red cedar grow very generally along all the water courses of the state, and coniferous species grow along Pine Ridge and the Wildcat Mountains. In the east, various trees are readily grown on the uplands; in the west, the honeylocust, the Osage orange, and Russian mulberry are planted for windbreaks. Conifers are spreading naturally, and the forestation of much of the state is undoubtedly possible.

Minerals. Clay, limestone, sand, and gravel are the only minerals of importance.

Manufactures. Nebraska is not preëminently a manufacturing state, but its manufacturing interests have been rapidly developing during the last fifty years. The manufactures are chiefly in lines immediately dependent upon

agriculture. The combined output of the packing, flour-mill and grist-mill, dairy, and malt liquor establishments constitute nine-tenths of the total output of the state.

Education. The schools of the state are under the supervision of a state superintendent of public instruction. School attendance is compulsory for children from seven to fifteen years of age, for not less than twelve weeks in the school term. Most of the schools of the state, both public and private, are coeducational. Besides the elementary and high schools there are four state normal schools. The University of Nebraska is located at Lincoln. Connected with it are the state colleges of agriculture and agricultural experiment stations, which receive support from the United States government, and an experimental substation at North Platte. The botanical and geological surveys of the state are carried on by the University, which also embraces a college of arts and sciences, a graduate college, a college of engineering, a teachers' college, colleges of law, medicine, and pharmacy, a school of fine arts, and an affiliated school of music; the medical school is in Omaha. Among the private educational institutions of the state are: the Nebraska-Wesleyan University (Methodist Episcopal), at University Place (a suburb of Lincoln); Union College (Adventist), at College View (a suburb of Lincoln); Creighton University (Roman Catholic), at Omaha; York College (United Baptist), at York; Cotner University (Disciples of Christ), at Bethany; Doane College (Congregational), at Crete; Grand Island College (Baptist), at Grand Island; Hastings College (Presbyterian), at Hastings; and Bellevue College (Presbyterian), at Bellevue.

Government. Nebraska is governed under the constitution adopted in 1875, and its amendments. All male persons who are citizens of the United States or have declared their intention to become such at least thirty days before an election, have the right of suffrage, provided they have attained the age of twenty-one years, have resided in the state six months, are not of unsound mind, and have not been convicted of treason or felony. Women who have either children or taxable property may vote on questions relating to schools. **EXECUTIVE.** The executive officers of the state are the governor, lieutenant-governor, secretary of state, treasurer, auditor, attorney-general, superintendent of education, commissioner of insurance, and commissioner of public lands. The governor's appointing power is almost entirely limited to officers of state institutions, and for every appointment he makes the approval of the Senate is required; but he need not have the consent

of that body to remove for incompetency, neglect of duty, or malfeasance in office, any officer whom he may appoint. The law requires that he shall in no instance grant a pardon until the attorney-general shall have investigated the case and conducted a public hearing. His veto power extends to items in appropriation bills, but it may be overridden by the vote of three-fifths of the members elected to each house of the legislature. **LEGISLATIVE.** The legislature consists of a Senate and House of Representatives. It meets in regular session on the first Tuesday in January of every odd number year, at Lincoln, the capital, its sessions being limited to 60 days. Both senators and representatives are apportioned according to population, and are elected by districts in November of each even number year, for a term of two years. **JUDICIARY.** The administration of justice is vested in a supreme court, sixteen district courts, county courts, and courts of justices of the peace, and police magistrates. The supreme court consists of seven judges, elected for terms of six years; each district court consists of one to seven judges, elected for a term of four years; and each county court consists of one judge, elected for a term of two years. **LOCAL GOVERNMENT.** County government exists under both the "district commissioner" system and the "township supervisor" system, the latter being rare. The county officers are the county judge, prosecuting-attorney, sheriff, coroner, clerk of court, county clerk, county treasurer, county surveyor, and superintendent of schools, —all elected by the people.

History. French explorers followed the Platte River (or the Nebraska) to the Forks, in 1739. Nebraska passed to the United States in 1803 as part of the Louisiana Purchase, and was explored by several American expeditions after its acquisition. Several trading posts were probably established in Nebraska between 1795 and 1812. In 1823 Bellevue became an Indian agency, and later was the first post-office in the state. Nebraska was one of the two territories created by the Kansas-Nebraska Bill of 1854. There were slaves within its borders from the beginning, but a territorial law of 1861 excluded slavery. As organized in 1854, Nebraska extended from 40° N. latitude to British America, and from the Missouri and White Earth Rivers to the summit of the Rockies; it was reduced to its present boundaries in 1861 and 1863. The state was torn by bitter factional quarrels over the location of the capital and admission to statehood, and during part of 1866 and 1867 there were two *de facto* governments—the territorial and the state. It was admitted to the Union in 1867.

NEVADA

NEVADA, one of the Mountain States of the United States, lies between latitudes 35° and 42° N., and longitudes 114° 2' and 120° W. It

is bounded on the N. by Oregon and Idaho, on the E. by Utah and Arizona, and on the S. and W. by California. The state has an extreme

length from north to south of 484 m., and an extreme width from east to west of 321 miles. In gross area it ranks sixth among the states of the Union (110,690 sq. m., of which 869 sq. m. represent water surface).

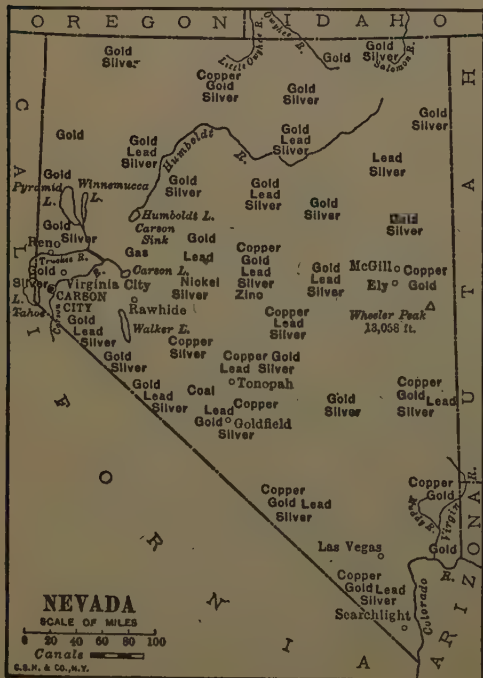
Relief. With the exception of small areas in the northeast and southeast corners of the state, which are drained to the Columbia and Colorado Rivers respectively, the entire state lies in the Great Basin Province, a region whose scanty waters do not flow to the sea. The surface is in reality a vast tableland from which rise numerous buttes, mesas, and isolated mountain masses. It is divided by the north-south mountain ranges into numberless long and narrow basins. The East Humboldt Range, a lofty mass about sixty miles west of the Utah boundary, forms the water parting for nearly all of the westward flowing streams of the state, and is by far the steepest and most rugged within Nevada. A number of peaks of this range attain a height of 11,000 or 12,000 feet. In the Snake Range in White Pine County, near the 39th parallel of north latitude, is Wheeler Peak (13,053 ft.) the highest point in the state. South of the center of the state are the Toyabe Mountains, with several peaks from 10,000 to 12,000 ft. in height. About 100 m. east of the California boundary, in Humboldt and Churchill Counties, lies a third important range, the Humboldt Mountains, whose highest point is Star Peak (9,925 ft.). A lofty spur of the Sierra Nevada

Range, the Washoe Mountains, enters the state and forms the western rim of the Great Basin. The mountain ranges are mostly short and in many cases traversed by relatively low and convenient passes, while the intermediate valleys are sometimes broad deserts, in other cases narrow canyons, or again there are basins of shallow lakes fed by the mountain snows.

Drainage. All the rivers of Nevada are small, but the state includes three drainage basins: in the N. the Owyhee, the Little Owyhee, the Salomon, and the Bruneau Rivers belong to the Columbia system, their waters reaching that stream from the Snake River; in the SE, the Virgin, the Beaver Dam, the Muddy and Vegas Rivers are tributaries of the Colorado. All the other rivers of Nevada end in lakes or sinks, the latter being marshy spots in the desert sands. Of the Basin streams, the Humboldt is the most important; rising in the northeast, it divides diagonally the mountain ranges and valleys, flows in a general southwest course for some 375 m. and empties into Humboldt Lake, the overflow from which goes into the so-called Carson Sink. Near its mouth its waters are subalkaline. The Truckee River, which formerly flowed from Lake Tahoe into Pyramid Lake, has been turned through an irrigation canal to empty into the Carson River. The chief lacustrine waters are these of Pyramid, Winnemucca, Humboldt, Walker, and Carson Lakes. The beautiful Lake Tahoe, with a depth of 1,600 ft., whose surface is at an elevation of 6,500 ft., is on the California boundary.

Climate. The mean annual temperature for the state is 49° F., but varies from 54° in the southwest to 46° in the north. The dryness of the atmosphere mitigates the severe cold of winter and tempers the intense heat of summer. Both hot and cold springs are numerous, with temperatures ranging from 50° to 204° F. The lofty range of mountains on the west deprives the winds from the Pacific of nearly all their moisture before they reach the Great Basin—hence the climate of Nevada is characterized by excessive dryness. The mean annual precipitation varies from 3 in. in the southwest to 12 in. in the east. In the central, northeastern, and northwestern sections the average annual rainfall varies from 7 to 8 inches. Except at great altitudes, snow falls and lies on the ground for only a few days each year. The melting of the mountain snows in the spring causes severe freshets, which in turn are followed by long seasons of drought.

Agriculture. The prevailing soils are sand and gravel loams, but other varieties are numerous, ranging from rich gravelly beds of extinct lakes, as in Lyon and Esmeralda Counties, to the strongly alkaline plains of the southern deserts. The most productive part of the state is the Humboldt valley and the region near Pyramid Lake, including the counties of Elko, Humboldt, and Washoe. Agriculture in Nevada



is dependent on irrigation, which is practised throughout the state wherever water is available. The three principal areas in which irrigation is practicable are along the Humboldt River, in the plains watered by the Carson, Truckee, and Walker Rivers, and at the foot of the mountains along the western edge of the state. The soil when reclaimed is well adapted for forest crops, cereals, vegetables, and deciduous fruits. Nevada is a great ranching country, and the live stock industry is one of the most important in the state. Only 3.9 per cent of the state's entire land area is in farms. The general character of Nevada agriculture is indicated by the fact that only 15.6 per cent of the total value of crops is contributed by the cereals, while 70.7 per cent is contributed by hay and forage, and 11.2 per cent by potatoes and other vegetables. The leading crops of the state (in the order of their importance as judged by value) are: hay and forage, potatoes, wheat, barley, vegetables (other than potatoes, sweet potatoes, and yams), and oats.

Forests. The valleys are treeless, except in the vicinity of the Truckee River, where considerable quantities of cottonwood and a small amount of willow, birch, and cherry are found. In the Washoe Mountains, as in the rest of the Sierra Nevada Range, there is a heavy growth of conifers extending down to the valleys; but in many places these mountains have been almost deforested to provide timber for the mines. Except for infrequent wooded strips, the mountains of the interior of the state are even more bare than the valleys.

Minerals. In its early days as a territory, thousands of people were attracted to Nevada by the fabulous richness of the Comstock Lode. This lode, perhaps the most remarkable deposit of precious metals discovered in historic times, has produced hundreds of millions of dollars in gold and silver, but is now worked out. The subsequent discovery of rich gold and silver mines at Tonopah, Goldfield, and Bull Frog has served to place Nevada among the great mining states of the country. In the production of gold, Esmeralda, Nye, Lincoln, and Storey Counties have been especially famous; and in the production of silver, Nye, Churchill, Eureka, and Storey Counties have been in the lead. Copper, lead, and zinc are produced in small quantities, being found in fissure veins with gold and silver. Other minerals exist in great variety. Salt deposits in Washoe and Churchill Counties are extensive and of commercial importance. The borax marshes in the west and southwest are no longer commercially productive. Large deposits of mica are found in the east. Gypsum occurs in a number of places, and veins of antimony are worked in the Battle Mountain district and in Bullion canyons. Bismuth, graphite, barites, magnetic iron ore, manganese, roofing-slate, cinnabar, wolframite, and sulphur are among the other mineral products of the state.

Manufacturing. Though Nevada is not important as a manufacturing community, the manufactures of the state have shown a marked increase in value during the past fifteen years. The most important industries (arranged in the order of value of products) are: the manufacture of cars and general shop construction and repairs by steam railroad companies, flour-mill and grist-mill products, and printing and publishing.

Education. The public schools are supported by the income from a Federal grant of 2,000,000 acres of public land, supplemented by state and local taxation. The administration of the school system is in the hands of a superintendent of public instruction. School attendance is compulsory for children between eight and sixteen years of age. The State University, at Reno, includes a College of Agriculture and Mechanic Arts, an agricultural experiment station, and a normal school. The state also supports a school of mines at Virginia City. The Federal government maintains three boarding schools for Indians in the state.

Government. Nevada is governed under the original constitution of 1864, and its amendments. The right of suffrage belongs to male and female citizens of the United States who have lived in the state for six months, in the county for thirty days, and in the precinct for thirty days preceding an election. Excluded from the suffrage are idiots, insane persons, and unpardoned convicts. **EXECUTIVE.** The executive officers of the state are the governor, lieutenant-governor, secretary of state, attorney-general, comptroller, treasurer, superintendent of public instruction, and surveyor-general—all chosen by popular vote for four years. The governor does not possess the usual pardoning power but is *ex officio* a member of the pardoning board. The governor and lieutenant-governor must be at least twenty-five years of age at the time of election to office. **LEGISLATIVE.** The legislature consists of a Senate and an Assembly. It meets at Carson City biennially (odd number years), its sessions being limited to 60 days. Members of the Senate are chosen every four years, about half the number retiring every two years. Members of the Assembly are chosen biennially. The constitution requires that the number of senators shall be not less than one-third nor more than one-half the number of members of the Assembly, and that the total membership of both houses shall not exceed seventy-five. Special sessions are limited to twenty days. **JUDICIARY.** The judicial department consists of a supreme court with a chief justice and two associate justices, chosen for six years, and district courts with judges chosen for four years. **LOCAL GOVERNMENT.** The state is divided into counties each of which is governed in local matters by a board of county commissioners, and is divided for administrative purposes into townships. Besides the board of county commissioners, the county officers in-

clude a prosecuting attorney, a sheriff, a county clerk, a register of deeds, an auditor, an assessor, a treasurer, a surveyor, and a superintendent of schools—all elected by popular vote. Township and county governments are uniform throughout the state. For each township there is a justice of the peace, chosen biennially by its voters.

History. Francisco Garces, a Franciscan monk, passed through the southern part of the state on his way to California in 1775. He was undoubtedly the first person of European descent to enter the limits of Nevada. Some fifty years later American trappers, and Canadian trappers of the Hudson Bay Company entered Nevada, and plied their trade along the Humboldt River. Many of the overland emigrants

on their way to California crossed Nevada in the early 'forties. In 1843–45, John C. Frémont made a series of explorations in this region. By the Treaty of Guadalupe-Hidalgo, which concluded the war with Mexico, Nevada became United States territory. It was a part of California, known as the Washoe Country, until September, 1850, when most of the present state was included in the newly organized territory of Utah. The first settlement in what is now the state of Nevada was planted in the valley of the Carson River in 1849. In March, 1861, the territory of Utah was divided at 39° west of Washington, and the western portion was called Nevada. Nevada was admitted as a state on October 31, 1864.

NEW HAMPSHIRE

NEW HAMPSHIRE, a North Atlantic State of the American Union, one of the New England group, and one of the original "thirteen." It lies between latitudes 42° 40' and 45° 18' 20" N., and longitudes 70° 37' and 72° 37' W. It is bounded on the N. by the Canadian province of Quebec; on the E. by Maine and the Atlantic Ocean; on the SE. and S. by Massachusetts; on the W. and NW. by Vermont. New Hampshire ranks forty-third in area (9,341 sq. m., of which 310 sq. m. are water surface) among the states of the Union.

Coast. The coast of New Hampshire, about 22 m. in length, is mainly a low sandy beach which affords but one harbor, that of Portsmouth, near the mouth of the Piscataqua River. About nine miles off the shore are the bleak Isles of Shoals, nine in number, a part of which belong to New Hampshire and a part to Maine.

Relief. Except in the extreme southeastern section, the surface is rugged and hilly throughout New Hampshire, with an average elevation of 1,200 ft. above the sea. The various mountain ranges, groups, and isolated peaks are all parts of the great Appalachian system of eastern North America. The White Mountains, in the north-central part of the state, comprise several short ranges and a number of outlying mountain masses. They contain, with the exception of the mountains in North Carolina, the highest summits in the Appalachian system. The principal ranges, all of which have a northeast-southwest direction, are the Presidential, the Franconia, and the Carter-Moriah. Between the Presidential and the Franconia Ranges is the celebrated Crawford Notch, some 2,000 ft. in depth, through which flow the Ammonoosuc and Saco Rivers. East of the Presidential Range and parallel to it runs the Carter-Moriah Range, from which it is separated by the valleys of the Glen-Ellis and Peabody Rivers. The Presidential Range, which is about twenty miles in length, contains Mount Washington (6,293 ft.), Mount Adams (5,815 ft.), Mount Jefferson (5,735 ft.), Mount Sam Adams (5,585 ft.) Mount Clay (5,554 ft.), Boot Spur (5,520 ft.),

Mount Monroe (5,390 ft.), J. Q. Adams Peak (5,384 ft.), Mount Madison (5,380 ft.), and Mount Franklin (5,028 ft.). The highest summits of the shorter Franconia Range are Mount Lafayette (5,269 ft.) and Mount Lincoln (5,100 ft.). The highest peak on the Carter-Moriah Range is Carter Dome (4,860 ft.). Franconia Notch, separating the Franconia and Pemigewasset Ranges, a region of great charm, is overlooked from the upper cliffs of Profile Mountain by The Great Stone Face, immortalized by Nathaniel Hawthorne. The whole White Mountain region is one of wild, romantic, and grand scenery—deep narrow valleys, picturesque glens, gorges, flumes, waterfalls, brooks, rivers, and lakes. The surface of New Hampshire north of the White Mountains presents numerous ridges, occasionally rising to a height of 2,000 ft. and more, with wide intervening valleys. South of the White Mountains, the surface of New Hampshire—a part of the New England Uplands—plateau-like in its main characteristics and occasionally broken by hills—slopes gradually to the southeast. Between the Merrimac Valley and the sea is the only lowland region in New Hampshire, where much of the surface is less than 600 ft. above the sea; but even here are isolated hills and a number of ridges 1,000 ft. or more in height.

Drainage. A water parting extends from Mount Monadnock (3,186 ft.) in the southwest to the northeastern corner of the state. West of this parting the drainage is through the Connecticut River and its tributaries southward into Long Island Sound, while to the east of the parting, the waters are carried eastward and southeastward directly into the Atlantic Ocean. The most important rivers of the eastern drainage area are the Merrimac and the Piscataqua. The Merrimac has its head waters in the White Mountains and flows almost due south to the point where it enters the state of Massachusetts. It is said to turn more spindles and propel more shuttles than any other river in the world. From Dover Point to its mouth, the Piscataqua is about half a mile wide, and fed by the Salmon

Falls, Lamprey, and Exeter Rivers, the volume and swiftness of its current at ebb-tide prevent the freezing of the water in Portsmouth Harbor during the coldest winters. Several hundred lakes and ponds are scattered over the surface of the state. The scenery of several of the lakes is remarkably beautiful and varied, and scarcely less attractive to tourists than that of the mountains. The largest and most widely known is Lake Winnepesaukee south of the White Mountain region. This beautiful sheet of water, about twenty miles long, lies 412 ft. above the sea; it is very irregular in outline, is surrounded by picturesque hills, and dotted by numerous islands. Among the other inland sheets of water, which add so much to New Hampshire's fame as a summer resort, are Squam, New Found, Sunapee, and Ossipee, all in the Winnepesaukee region; Massabesic, farther south; and, north of the White Mountains, Diamond Ponds, Umbagog, and Connecticut Lakes.

Climate. The winters are long and severe and the summers cool. In the White Mountain region and farther north the mean annual temperature is 42° F., but great extremes of temperature occur in the deep mountain valleys, where the thermometer frequently records over 90° in summer and -10° to -25° in winter. Along the shore the variations are less pronounced. The mean annual precipitation for the entire state is about 40 in., distributed quite evenly throughout the year. Among the mountains and in the northern part of the state the annual fall of snow is from 7 to 8 ft., but in the southeastern part is about one-half that amount. The prevailing winds are northwest and southeast.

Agriculture. The soils of the valleys, coastal plain, and rounded hills are relatively fertile, but the highlands become more and more rugged and sterile as the White Mountain region is approached. The presence of boulders and the general topography prevent the use of farm machinery on a large scale, and encourage pasturage and permanent meadows rather than growing grain. Agriculture has been greatly modified in recent years, and the production of vegetables, fruits, dairy products, poultry and eggs has been largely substituted for the growing of cereals. Farmers have learned that the entertainment of summer boarders is a profitable farm industry, and the revenues derived from it are bringing comforts and even luxuries into homes where old-fashioned farming meant poverty. Agricultural crops (in the order of value) are: hay and forage, forest product of farms, potatoes and other vegetables, cereals, fruits and nuts.

Forests. The principal merchantable timber of the state is red spruce, found chiefly in the virgin forests of the north. The white pine, which was once abundant in all parts of the state, has been cut; but some of the second growth in the south is already merchantable. The most common hardwood trees are sugar



maple, yellow birch, white birch, and beech; these are widely distributed throughout the state, but are for the most part too young to cut. Most of the virgin forests of the northern section were cut in the latter half of the 19th Century, while abandoned farms in the southern section were becoming reforested. Large quantities of wood, chiefly spruce, have been used in the manufacture of paper and wood pulp.

Fisheries. Although the trout and salmon of the fresh waters in the interior are a great attraction to sportsmen, the commercial fisheries, which are confined to the coast region, are of small and declining importance.

Minerals. The most important of the mineral products of New Hampshire is granite, which forms more than one-half of the total value of all mineral products of the state. The only other large items are clay and clay products, mineral waters, and a quartz schist suitable for making whetstones and oilstones.

Manufactures. Natural conditions have made New Hampshire a manufacturing rather than an agricultural state. The lakes and ponds of the elevated central and northern portions serve as reservoirs to feed the rivers flowing to the southward and furnish abundant and constant water-power to the towns of the southern section. Close proximity to the markets and trade centers of New England, and excellent transportation facilities have also contributed to the growth of manufacturing interests. The principal manufactured products (in the order

of their value) are: boots and shoes; cotton goods; woolen, worsted, felt goods, and wool hats; lumber and timber products; paper and wood pulp.

Education. New Hampshire has a complete system of free public schools, including high and normal schools. Each town is constituted a school district, and each district is required to keep its schools open for at least twenty weeks each year. All children between the ages of eight and fourteen, and those between the ages of fourteen and sixteen who cannot read and write English, are required to attend either a public or an approved private school for the full term. The College of Agriculture and Mechanic Arts at Durham is a state institution, and Dartmouth College, at Hanover, receives some state aid. Saint Anselm's College at Manchester, is a Roman Catholic institution.

Government. The nucleus of the present constitution was framed in 1784. It was much amended in 1792 and 1852, and radically changed and amended in 1877. Every male resident of a town who is twenty-one years of age or over, a citizen of the United States, and not a pauper or excused from paying taxes at his own request, and who is able to read English and to write (unless physically unable to do so) is entitled to the suffrage. Women have the right to vote in the election of school officers.

EXECUTIVE. The chief executive or governor is elected for a term of two years, and is assisted by what is known as the governor's council, an advisory body of five members, elected at the same time and for the same term as the governor. No person is eligible for either office who shall not at the time of his election be at least thirty years of age and have been an inhabitant of the state for the seven years next preceding his election; a councilor must be a resident of the district from which he is chosen. The governor and council appoint all judicial officers, the attorney-general, auditor, administrative boards, coroners, and certain naval and military officers; they have power to pardon offenses; and they exercise some control over expenditure. The governor may veto any bill or resolution presented to him, and a two-thirds vote of the members of both houses is required to pass over his veto. There is no lieutenant-governor.

LEGISLATIVE. The legislative branch of the government, known as the general court, is composed of a Senate and a House of Representatives. It meets at Concord on the first Wednesday in January of every odd number year, and at such other times as the governor may appoint for a special session. The length of session is not prescribed by law. Senatorial

districts are formed so as to be approximately equal with respect to the amount of direct taxes paid in each; representation in this body is, therefore, apportioned on the basis of property. In the house of representatives, representation is apportioned on the basis of population, but is so arranged as to favor the rural districts; in this way every town or ward of a city having 600 inhabitants is allowed one representative, but, although for every additional representative 1,200 additional inhabitants are required, any town having less than 600 inhabitants is allowed a representative for such proportionate part of the time the legislature is in session as the number of its inhabitants bears to 600. Senators and representatives are elected for a term of two years. A representative must have been an inhabitant of the state for at least two years next preceding his election, and must be a resident of the town, parish, or ward from which he is chosen. A senator must be at least thirty years of age, must have been an inhabitant of the state for at least seven years next preceding his election, and must be a resident of the district he is chosen to represent. **JUDICIARY.** For the administration of justice the state has a supreme court and a superior court; each county has a probate court. Besides the foregoing are justice of the peace courts, and some towns as well as the cities have a police court. Judges and justices are appointed by the governor and council, and with the exception of justices of the peace, they hold office during good behavior, or until they have attained the age of seventy; justices of the peace are appointed for a term of five years and may be reappointed. **LOCAL GOVERNMENT.** Local government is administered by counties, towns (townships), village districts, and cities.

History. Among the early explorers who visited New Hampshire were Martin Pring (1603); Samuel de Champlain (1605); and Captain John Smith (1614). The first settlement of which there is positive evidence was made in 1623 by David Thomson at Little Harbor, now in the town of Rye. In 1641-79, 1689-92, and 1699-1741 New Hampshire was joined to the Massachusetts colony; but during the intervening dates and until 1775 it was under royal governors of its own. A provisional government was formed in 1776, a state constitution adopted in 1784, and New Hampshire was the ninth state to ratify the national constitution (1788). Among the distinguished sons of New Hampshire may be mentioned President Franklin Pierce, Daniel Webster, Lewis Cass, Salmon P. Chase, and Horace Greeley.

NEW JERSEY

NEW JERSEY, one of the Middle Atlantic States of the Union, lies between latitudes 38° 46' and 41° 21' N., and longitudes 73° 53' and 75° 35' W. It is bounded on the N. by the state of New York; on the E. by New

York and the Atlantic Ocean; on the S. by the Atlantic Ocean and Delaware Bay; and on the W. by Delaware and Pennsylvania. It is separated from New York, in part, by the Hudson River, New York Bay, Staten Island Sound,

and Raritan Bay; and the Delaware River and estuary form the entire western boundary. New Jersey has an extreme length, north and south, of about 167 m.; a breadth, east and west, of about 57 m.; and an area of 8,224 sq. m., of which 710 sq. m. represent water surface. It ranks forty-fifth in size among the states of the Union.

Relief. The surface of New Jersey rises from sea level along the greater part of its eastern and southern coasts to a high region in the north, where at one point it reaches an altitude of 1,800 ft. There are four distinct topographic belts,—Coastal Plain, Triassic Lowland, Highlands, and Appalachian. The Coastal Plain lies to the southeast of a line drawn between Trenton and New Brunswick. In this section the surface rises gently from sea level along its eastern margin to a ridge about 200 ft. in altitude, extending from the vicinity of Sandy Hook southwestward through the center of the region, and nearly parallel with the lower course of the Delaware River. Besides this central ridge the only elevations in the Coastal Plain are a few low, isolated hills, such as the Navesink Highlands (260 ft.) in Monmouth County. A small part of the area is tidal marsh, lying chiefly between the barrier beaches of the Atlantic coast and the mainland. Delaware Bay and the southern reaches of the Delaware River are bordered by marine terraces rising from 10 to 80 ft. above tide level. Immediately to the northward from the Coastal Plain Region is the Triassic Lowland section; a line drawn southwest across the state through Pompton, Morristown and Highbridge to the Delaware, will denote approximately, its northwestern boundary. The surface is chiefly a rolling plain interrupted by high ridges of trap rock, examples of which are the Palisades of the Hudson, and the First and Second Watchung, or Orange Mountains. With the exception of the ridges, the Triassic Lowland section lies at an altitude of 50 to 250 ft. above sea level. Northwest of the Triassic Lowland belt is the section known as the Highlands, a region embracing an area of about 900 sq. miles. This is an upland plateau which corresponds to the Piedmont belt of the states farther south. The average elevation of the Highlands is about 1,000 ft. above sea level. The Appalachian section occupies the northwestern corner of the state and includes a number of parallel ridges between the northeastern extensions of the South (Blue Ridge), and the Kittatinny Mountains of Pennsylvania. The Kittatinny Ridge in New Jersey attains its greatest elevation (High Knob, 1,799 ft.) in Sussex County, close to the northern boundary. A break in the ridge at Water Gap forms the opening through which flows the Delaware, in a region famed for its picturesque scenery.

Drainage. New Jersey is drained to the Atlantic Ocean and to the Delaware River. Of the streams lying wholly within the state, the Passaic is the most important. At Little Falls

it descends 40 ft., by a cascade and a mile of rapids, and at Paterson it has a sheer fall of 70 feet. With its tributaries the Passaic drains an area of over 900 sq. miles. The Hackensack River, draining an area of about 200 sq. m. in the northeastern part of the state, empties into Newark Bay. It is about 35 m. long. The Raritan River, the largest river of New Jersey, flows eastward through the center of the state and drains an area of 1,100 sq. miles. Most of the other streams of the Atlantic slope are short and unimportant, but a number in the southern part of the state are navigable tidal streams. The Morris Canal and the Delaware and Raritan Canal add to the inland navigation of the state. Among the streams flowing to Delaware Bay, the more important are the Maurice River and Great Egg Harbor River. The Delaware flows along the western and southwestern borders of the state for a distance of about 250 m. and drains an area of 2,400 sq. miles. Its New Jersey tributaries are short and commercially unimportant. Numerous small lakes in the northern part of the state are picturesque features of the Highlands region and form popular places of resort during the summer season. Of these the largest and best known are Lake Hopatcong, lying in Morris and Sussex Counties, and Greenwood Lake on the northern boundary line.

Coast. The coast from Sandy Hook to Cape May is generally protected by long sandy spits



or island beaches, behind which lie shallow bays and sounds. The entire coast is a summer resort land, Long Branch, Ocean Grove, Asbury Park and Atlantic City being among the best known localities.

Climate. There is considerable variation in the climate of New Jersey, owing to the elevation of the northern section, and the proximity of the ocean to the southern section. The average summer temperature is about 67° F. in the north and 75° in the south. The mean annual temperature ranges from about 49° in the N. to 55.5° at Cape May. At Atlantic City the mean annual temperature is 52°; that for the winter is 34°, with an extreme of -7°; and for the summer 70°, with an extreme of 99° F. In summer the prevailing southwesterly winds are interrupted about midday by a delightful sea-breeze, which lasts for several hours and adds greatly to the comfort of the numerous summer visitors of the coast resorts. The annual rainfall is between 41 and 50 inches. In the winter season part of the precipitation is in the form of snow, but, except in the extreme north, it lasts only a short time.

Agriculture. The principal agricultural crops of New Jersey are: hay and forage, potatoes, Indian corn, wheat, rye, and oats. The state no longer ranks high in the production of cereals; but in market-gardening, in dairying, and in horticulture and floriculture it is making great progress. In the acreage and value of its cranberry crop it holds first place. In the production of vegetables of marketable value it is surpassed by only four other states. In the acreage devoted to the cultivation of small fruits it stands first; but in production and in the value of crop it is second.

Fisheries. The fisheries of the state are of great commercial value, the chief catch being oysters, clams, shad, squetagee (weakfish), bluefish, menhaden, sea bass, and cod.

Minerals. Among the mineral deposits of the state are: roofing-slates, building and flag stones, zinc ores, franklinite, gneiss and magnetic iron ore, copper ore, glass-sand, and clays. In New Jersey the mining of clays is more important than in any other state. The mining of natural fertilizers (white and greensand marls) is a long established industry. There are a number of valuable mineral springs in the state.

Manufactures. The industrial prominence of New Jersey is due largely to its favorable geographic position and to its excellent transportation facilities. Most of the materials used in the manufacturing industries of the state are produced beyond its borders, and most of the manufactured products are shipped to outside markets. The proximity of the state to the anthracite coal fields of Pennsylvania, which supply a large portion of the fuel used in its manufacturing industries, and to the markets of New York City and Philadelphia, has been a powerful factor in its industrial development.

The leading manufactures of the state (given in order of the value of products) are: copper smelting and refining, silk and silk goods, foundry and machine shop products, slaughtering and meat-packing, woolen and felt goods and wool hats, wire, leathers, electrical machinery and supplies, tobacco manufactures, chemicals, and malt liquors.

Education. The public schools of New Jersey are administered by a state board of education and a commissioner of education. The board of education is non-partisan and consists of eight members who serve for eight years. The commissioner of education serves for five years and is assisted by four deputy commissioners, appointed by himself. The commissioner also appoints county superintendents, who serve for three years. The counties are divided into districts and each district is required to furnish free text-books. All children between the ages of seven and fifteen are required to attend school for the entire school year, and those who at fifteen years of age have not completed the grammar school course must continue to attend until they either complete it or attain to seventeen years of age. Children past fifteen years of age who have completed the grammar school course but are not regularly employed at some lawful occupation must attend a high school or manual training school until seventeen years of age. In addition to the regular public schools the state maintains normal schools at Trenton and Montclair, the Farnum Preparatory School, at Beverly; a Manual Training and Industrial School for Colored Youth, at Bordentown; and an agricultural college and experiment station in connection with Rutgers College, at New Brunswick. The state also makes appropriations for industrial schools in Newark, Hoboken, and Trenton. Among the institutions which do not receive state aid are: Princeton University, at Princeton; Rutgers College, at New Brunswick; the Stevens Institute of Technology, at Hoboken; the Theological Seminary (Presbyterian), at Princeton; the Drew Theological Seminary (Methodist Episcopal), at Madison; Seton Hall College (Roman Catholic), at South Orange; and many others. There are many private academies, seminaries, and secondary schools, sectarian and non-sectarian.

Government. The state is governed under the constitution of 1844, with subsequent amendments. The right of suffrage is conferred upon all male citizens of the United States twenty-one years of age and over, who have resided in the state for one year and in the county for five months preceding the election. Paupers, idiots, insane persons, and persons convicted of crimes which exclude them from being witnesses, and who have not been pardoned and restored to civil rights, are excluded from the right of suffrage. **LEGISLATIVE.** The legislature consists of a Senate and a General Assembly. It meets annually at Trenton, the length of session being

unrestricted by law. Senators (one to each county) are elected for a term of three years, and about one-third of the membership is chosen each year. A senator must at the time of his election be at least thirty years old, and must have been a citizen and inhabitant of the state for four years and of his county for one year next preceding his election. The members of the General Assembly are elected annually, are limited in number to sixty, and are apportioned among the counties according to population, with the proviso that each county shall have at least one member. An Assemblyman must at the time of his election be at least twenty-one years of age, and must have been a citizen and inhabitant of the state for two years, and of his county for one year immediately preceding election. Money bills originate in the General Assembly, but the Senate may propose amendments. **EXECUTIVE.** The executive power is vested in a governor, who is elected for three years and may not serve for two successive terms, but who may be reelected after being for a full term out of office. He must be at least thirty years of age, must have been a citizen of the United States for at least twenty years, and a resident of the state seven years next preceding his election. He is not eligible, during the term for which he is elected as governor, for election to any office under the state or the United States governments. If his office be vacant through death, removal, or any other cause, he is succeeded by the president of the Senate, who serves until another governor is elected and qualified. He has large appointive power. With the advice and consent of the Senate he selects the secretary of state, attorney-general, commissioner of education, chancellor, chief justice, judges of the supreme, circuit, inferior, and district courts, and "lay" judges of the court of error and appeals, as well as the minor administrative officers. The state treasurer, comptroller, and the commissioner of deeds are appointed by the two houses of the legislature in joint session. The governor may make no appointments in the last week of his term. He is *ex officio* a member of the court of pardons, and his approval is necessary in all cases of pardon or commutation of sentence. **JUDICIARY.** At the head of the

state judicial system is the court of error and appeals, composed of the chancellor, the justices of the supreme court, and six additional "lay" judges. The supreme court consists of a chief justice and eight associate justices. The other courts of the state are: the court of common pleas, the court of quarter-sessions, the court of oyer and terminer, the orphans' court, the prerogative court, the court of chancery, the court of pardons, and courts of justices of the peace. **LOCAL GOVERNMENT.** For the purposes of local government the state is divided into counties, cities, townships, towns, and boroughs. The government of the towns is administered through a council, clerk, collector, assessor, treasurer, etc., chosen by popular vote; that of the townships is vested in the annual town meeting, at which the administrative officers are elected.

History. Voyages made with a view to exploration and settlement of the region now called New Jersey may be said to have begun with the voyage of Henry Hudson in 1609. The English claim to the territory was founded on the voyage of Cabot in 1497. The Dutch settled at Bergen in 1617, the region being claimed as a part of New Netherland. Soon after, some Swedes, regarding the country as a part of New Sweden, settled on the lower Delaware, but they were expelled by the Dutch under Peter Stuyvesant in 1655. In 1664 New Netherland passed to the English, and the Duke of York gave the portion included in the present New Jersey to Lord Berkeley and Sir George Carteret. The latter had been administrator of the Island of Jersey, and the American province was thus named New Jersey. In 1676 the province was divided into West New Jersey and East New Jersey, the former being under a Quaker proprietorship and the latter under Carteret. West New Jersey soon passed to William Penn, who in 1682 purchased East New Jersey also. In 1702 the government of both colonies passed to the crown and the two were united. Until 1736 New Jersey was under the governor of New York, but it had a separate assembly. New Jersey was one of the thirteen original states, and was the scene of some of the most stirring events in the struggle for independence.

NEW MEXICO

NEW MEXICO, a Mountain State of the United States, lies between latitudes 31° 20' and 37° N., and longitudes 103° and 109° 4' W. It is bounded on the N. by Colorado; on the E. by Oklahoma and Texas; on the S. by Texas and Mexico; and on the W. by Arizona. New Mexico has an extreme length from north to south of 400 m. and an extreme width from east to west of 358 miles. In gross area it ranks fourth among the states of the Union (122,634 sq. m., of which 131 sq. m. represent water surface).

Relief. New Mexico lies in the Great Plains, Rocky Mountain, and Plateau Provinces of the

United States. The mountains of New Mexico are all a part of the Rocky Mountain system. The Front Range crosses the northern boundary of the state east of the Rio Grande River and extends south to about 35° 30' N. latitude. This section forms the water parting between the upper waters of the Canadian and the Rio Grande Rivers, and contains many of the loftiest peaks in the state, among them being Truchas (13,275 ft.) and Costilla (12,634 ft.). West of the Rio Grande is a series of lower ranges whose western slopes merge very gradually with the Plateau Region. The San Juan, Gallinas, and

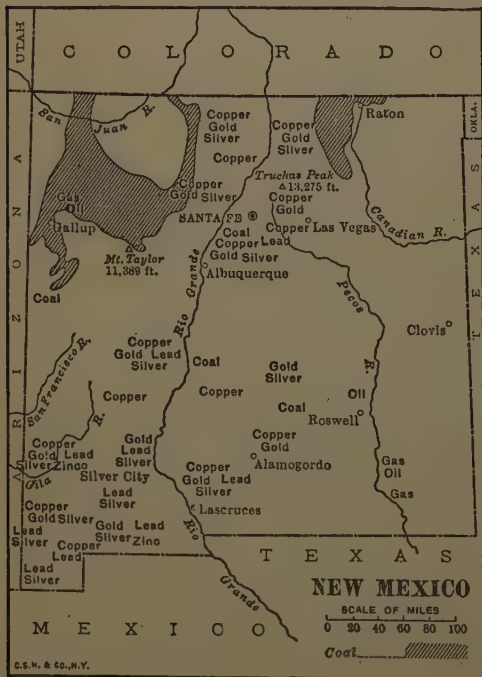
Naciminto Ranges are among the most notable in this group. South of the Rocky Mountains lies the so-called Basin Region crossed by numerous disconnected mountain ranges. These ranges, trend north and south, are from 30—100 m. in length, and the higher ranges, reaching altitudes of 8,000 or 10,000 ft., are separated by broad intermontane desert plains or valleys which, sloping towards their centers, seldom have a distinct drainage outlet. East of the Pecos and south of the Canadian Rivers lies the great arid tableland known as the Staked Plains; a vast stretch of barren, monotonous wastes. The Plateau Region includes most of the area north of the Gila River and west of the Rio Grande. On the north and west the plateau continues into Colorado, Utah, and Arizona. Near its southern and eastern borders are many lava flows and extinct volcanic mountains, one of the most imposing being Mt. Taylor (11,389 ft.). A conspicuous feature of New Mexican landscape is the "mesa," a flat-topped hill rising above the surrounding country like a table.

Drainage. New Mexico has no navigable rivers. The most important stream is the Rio Grande which, rising in southern Colorado, enters New Mexico through deep canyons near the center of the northern boundary and flows southward across the entire state. It changes from a mountain stream in the north to a sluggish river in the south, and in its lower course in New Mexico its bed is frequently dry. In the flood season it inundates the lowlands, spreading

over the surface a rich deposit of silt, because of which characteristic it is frequently called the "Nile" of New Mexico. The Pecos, similar in its characteristics to the Rio Grande, rises in Mora County and flows southward into Texas. The Canadian River, rising on the eastern slope of the Rocky Mountains, flows in a general southeasterly direction across northern Texas into Oklahoma. About midway between the western boundary and the Rio Grande passes the "Continental Divide," which separates the waters entering the Gulf of Mexico from those that flow into the Gulf of California. Most of the westward flowing streams are of slight importance, though their flow is perennial. They include the Gila, San Francisco, San Juan, and several others. Many of the smaller streams in the valleys disappear through seepage or evaporation.

Climate. The climate of New Mexico is characterized by a lack of humidity and great daily variation in temperature. The low humidity, high altitudes, and southern latitude combine to make the climate salubrious and beneficial to persons who have pulmonary disorders. At Santa Fé the mean annual temperature is 49°, the mean for the winter is 31°, and for the summer 67°, and the highest and lowest temperatures ever recorded were 97° and -13° F., respectively. In all parts of New Mexico except the northwest there is a so-called "wet season," which begins early in July and lasts for a month or six weeks, the rain coming in the form of short afternoon thunderstorms. The rainfall varies with the altitude. On the high plateaus it is sufficient for the growing of grain crops with irrigation, but in the stream valleys irrigation is necessary. The normal annual precipitation ranges from about 6 in. in the Rio Grande and San Juan valleys to 20 in. on the plateaus, and to 25 in. in the mountains. Little snow falls in the valleys, but on the mountain peaks and in the canyons it collects to great depths and forms a steady source of the water supply for the rivers.

Agriculture. In the river valleys the soil is fertile and produces excellent crops. The soils of the Pecos and Rio Grande valleys are of alluvial origin and range in character from gravelly and sandy soils to heavy loams. The soils of the desert valleys are composed chiefly of the gravelly and sandy detritus from the adjacent mountains and plateaus. In the desert valleys are areas of loam and clay soils. Only about one-seventh of the total area of the state is included in farms. Because of the small amount of rainfall agriculture is confined chiefly to the river valleys, and one of the characteristics of New Mexico is the great area of arid land utilized for grazing purposes only. The crops of the cultivated lands (in the order of importance as judged by value) are: hay and forage, corn, wheat, oats, Kafir corn and milo maize, and potatoes. A little cotton has been grown near Carlsbad in the Pecos valley, sugar-beets



are grown south of the Albuquerque, and cantaloups in the southern Rio Grande valley. Fruit, especially the Bartlett pear, is very successfully grown. Stock-raising is a most important industry and the growing of sheep for wool takes a leading place. Irrigation has been practised in New Mexico since prehistoric times, and there are now a number of extensive irrigation works under the federal government. Irrigation by private companies is of some importance. Dry farming has proved a great success in New Mexico, and thousands of acres are being cultivated by that process.

Forests. The national forest area covers more than 10,173,890 acres, and there are about 4,000,000 acres of heavily forested country in private ownership. Only the higher ranges and plateaus are timbered, the low slopes are usually covered with a scrub oak, juniper, and piñon, but some mountains, especially those along the eastern border of the Rio Grande valley, are absolutely treeless. The principal forest areas are upon the southern end of the San Juan Range, upon the Sangre de Cristo Range, and in Socorro County west of the Rio Grande. The chief varieties of timber are the red fir, Engelmann's spruce, and yellow pine. In the valleys the only trees native to the soil are the willow and the cottonwood, found along the water courses.

Minerals. The state has valuable mineral resources including coal, gold, silver, copper, lead, and zinc. By far the most important of the mineral products is coal, which is found in all forms, lignite, bituminous, and anthracite. Iron ores are frequently found, but have not been extensively worked. Gypsum beds are widely distributed. The quarries yield granite, sandstone, limestone and marble, and turquoise is found in several localities within the state. Mineral waters and salt are also found to some extent, and mica and platinum are produced in small quantities.

Manufactures. New Mexico is preëminently a mining and stock-raising region, and manufacturing is still in its infancy. The important industries (arranged in the order of value of products) are: cars and general shop construction and repairs by steam railroad companies, the manufacture of lumber and timber products, printing and publishing, and flour- and grist-milling.

Education. The constitution provides for a state board of education and requires school attendance of every child of school age "of sufficient physical and mental ability." A superintendent of public instruction exercises a general supervision over all of the state schools. There is also a superintendent of schools for each county, and the counties are divided into school districts, each having three directors. In incorporated cities and towns the schools are under the supervision of local boards of education. The state supports the University of New Mexico, at Albuquerque; a college of

agriculture and mechanic arts, at Mesilla Park; a normal school, at Silver City; a normal university, at Las Vegas; a school of mines, at Socorro; and a military institute at Roswell. Indian day schools are maintained by the federal government at Albuquerque, Jicarilla, Santa Fé, and Zuni. By statute the public school curriculum must include the study of the nature of alcoholic drinks and their effect upon the human system, and a course of industrial education is prescribed.

Government. New Mexico is governed under a constitution adopted January 21st, 1911, and its amendments. Suffrage is granted to every male citizen of the United States over twenty-one years of age, resident in New Mexico twelve months, in the county ninety days, and in the election precinct thirty days preceding an election. Excluded from the suffrage are idiots, insane persons, persons convicted of a felony, or of infamous crime (unless restored to political rights), and Indians not taxed. By statute railway employees, if necessarily absent from the precinct in which they registered and qualified, may vote elsewhere. In school elections, which must be held at different times from other elections, women possessing the legal qualifications of age and residence may vote, unless a majority of the qualified voters of a district, thirty days before the election, petition the board of county commissioners against woman suffrage. There must be a similar petition for women's voting before they are restored to suffrage. Women may hold office on boards of education, or be school directors, or county school superintendents. **EXECUTIVE.** The executive officers of the state are elected for two years, and must be citizens of the United States, at least thirty years of age, and residents of New Mexico for five years before election. They are a governor, lieutenant-governor, secretary of state, state auditor, state treasurer, attorney-general, superintendent of public instruction, and commissioner of public lands. The governor appoints a legal adviser and a fish and game commissioner. The governor may veto within three days (Sundays excepted) any measure, or in an appropriation bill any item, but bills may be passed over his veto by a two-thirds vote of the members present and voting in each house. **LEGISLATIVE.** The legislature consists of a Senate and House of Representatives. Senators are elected for terms of four years, and members of the house for two years. The legislature meets at Santa Fé, biennially (even number years), the session being limited to 60 days. **JUDICIARY.** The state judiciary comprises a supreme court with three judges, elected for terms of eight years; eight district courts each having one judge, elected for six years; and probate courts in each county. **LOCAL GOVERNMENT.** For local government the state is divided into counties, the officers of which are a county board, a probate judge, district-attorney, sheriff, clerk of court, register of probate,

county assessor, county treasurer, county surveyor, and a superintendent of schools—all elected for terms of two years.

History. New Mexico was explored by Spaniards from Mexico at various times between 1536 and 1581. Between 1583 and 1595 several attempts at the conquest and occupation of New Mexico were made, but for various reasons they were unsuccessful. Santa Fé, which occupies a site nearly 7,000 ft. in elevation, is after St. Augustine, Florida, the oldest town in the United States, dating from near the beginning of the 17th Century. An Indian revolt in 1680 resulted in the massacre of over 400 Spanish settlers and the capture of Santa Fé, but in 1692 the Spaniards regained their hold on the territory, and European occupation was assured. The history of New Mexico during

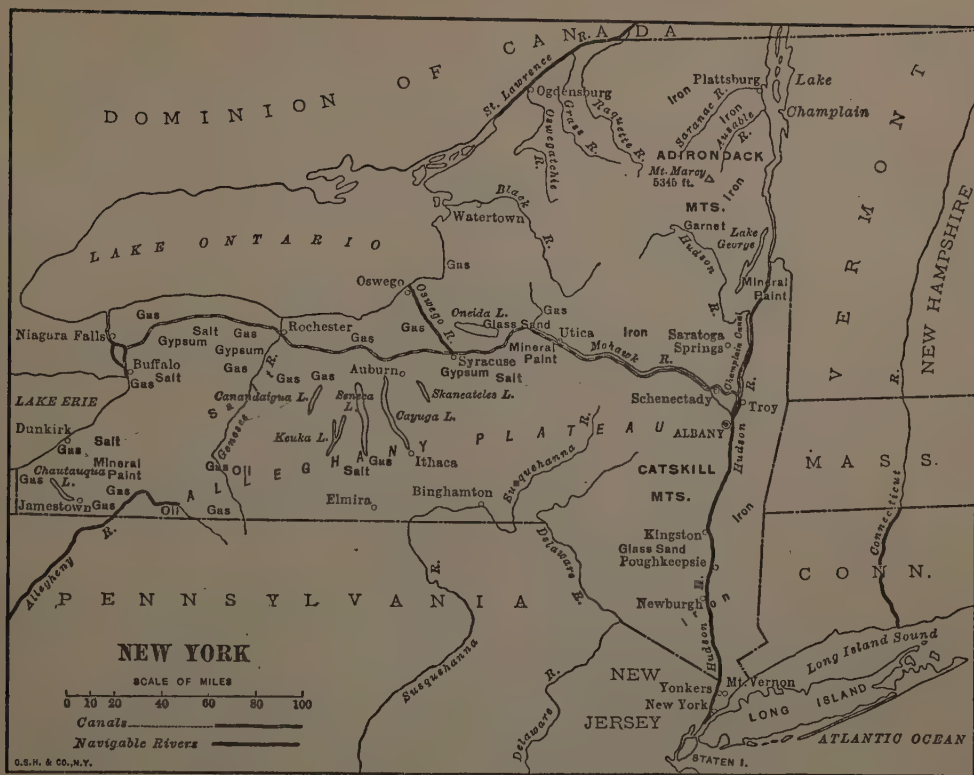
the 18th Century was uneventful. After the achievement of Mexican independence in 1821, New Mexico became successively a province, a territory, and a department of that country. It was ceded to the United States by the Treaty of Guadalupe-Hidalgo in 1848. Previous to that time American traders had been active in the territory, and after that date the settlement of the region by Americans progressed steadily. The territorial form of government was provided by Congress in 1850, and was inaugurated on the 3rd of March, 1851. Its area was increased by the Gadsden Purchase from Mexico and by the Texan cession of the country lying east of the Rio Grande. New Mexico assumed its present boundaries and area in 1863. It was admitted to the Union as a separate state in June, 1910.

NEW YORK

NEW YORK, or the "Empire State," one of the original thirteen states of the Union, belongs in the Middle Atlantic group. It lies between latitudes 40° 30' and 45° 0' 2" N., and longitudes 71° 51' and 79° 45' 55" W. Roughly triangular in shape, it has a very irregular outline, and is bounded on the W., N.W., and N. by Canada, from which it is separated for two-thirds of the distance by Lake Erie, Niagara River, Lake Ontario, and the St. Lawrence River; on the E. by Vermont, Massachusetts, and Connecticut; and on the S. by the Atlantic Ocean, New Jersey, and Pennsylvania. The state limits include Long and Staten Islands, and the jurisdiction of the state covers Long Island Sound and the lower waters of the Hudson to low-water mark on the New Jersey shore. The state has a breadth from E. to W. of about 326½ m., and an extreme length from N. to S. (on the line of the Hudson) of about 300 m. New York ranks twenty-ninth among the states of the Union, its area being represented by 47,654 sq. m. of land surface and 1,550 sq. m. of inland water surface.

Relief. The greater part of the eastern and northern sections of the state are mountainous. The central and western parts are of plateau character, a continuation northward of the Alleghany Plateau of the Appalachian System. Long Island is a narrow portion of the Coastal Plain section, which is more broadly developed in the states south of New York. Of the entire area of the state, about one-twentieth—most of which is on Long Island—is less than 100 ft. above the sea in elevation. The rest of the surface is between 100 and 1,500 ft. in elevation, and in the mountain regions the average is much higher. The mountainous area of northeastern New York comprises the Adirondacks, a mountain mass resembling in formation the Laurentian Mountains of Canada rather than the ranges of the Appalachian System. The highest peak of the group and the culminating point of the state is Mount Marcy (5,345 ft.). There are a number

of other peaks with elevations of 4,000 to over 5,000 ft. The Adirondack region is a true wilderness with countless tarns, lakes and ponds, and their connecting waterways. There are areas of semi-primeval forest where game is still plentiful, and all nature in this enchanting region is untamed and glorious. It is a land for the hunter and sportsman, for the healthseeker and nature lover. Farther south on both sides of the Hudson River are the Highlands of the Hudson, a section of the Blue Ridge Range of the Appalachian System. Many lofty and precipitous bluffs rise close to the shores of the river and form its most impressive scenery. Among the summits are Breakneck (1,635 ft.), Crow Nest (1,405 ft.), Storm King, and Anthony's Nose (1,048 ft.). The Catskill Mountains and outlying ridges, including the Shawangunks on the south and the Helderberg Mountains on the west, are a part of the Appalachian System and the culmination of the plateau region. The Catskills fall abruptly to the Hudson valley on the east, as the Helderberg Mountains, their westerly continuation, fall to the valley of the Mohawk, thus constituting the escarpment of the plateau. The Catskills reach their greatest elevation in Slide Mountain (4,200 ft.). The country of the Catskill region is not so wild as is that of the Adirondack section, but it is picturesque, and furnishes many delightful summer resorts. The plateau region extends westward and northward from the Catskills to the lowlands bordering Lakes Erie and Ontario. Presenting a great variety of surface, the plateau decreases in height towards the north by a series of terraces, and reaches its lowest elevation on the plain which skirts Lake Ontario. In places the surface becomes so rugged as to be called mountainous, and elevations of 1,500 and 2,000 ft. occur at intervals all the way from the Catskills to Chautauqua County. The plateau is deeply cut by valleys, many of which are wide and afford fertile areas of farm lands. In west-central New York the plateau region is one of



great beauty and fertility, characterized by a remarkable series of long, deep, and narrow lakes.

Drainage. The drainage of New York is complex and its waters reach the sea by various courses. The Hudson and a few streams in the extreme southeast have independent courses to the ocean within the state itself; a part of the Catskill region drains into Delaware Bay through the Delaware River; the Susquehanna drains a large area in the south-central part of the state into Chesapeake Bay; a small part of the state in the southwest drains into the Ohio and thence by the Mississippi into the Gulf of Mexico; and, finally, a large part of the plateau and the Adirondack regions are drained through the St. Lawrence System. The principal rivers of the state are: the Hudson and St. Lawrence, both important commercial channels; the Mohawk, the main tributary of the Hudson; the Oswego, which discharges the waters of the central chain of lakes into Lake Ontario; the Genesee, Alleghany, and Susquehanna with its main tributaries; the Delaware and its branches; the Black, Oswegatchie, Grass, Raquette, Chazy, Saranac, and Ausable. The rivers of New York are noted for their many falls and rapids. Of these the largest is the cataract of Niagara on

the Canadian border. The American Fall is entirely within the state; but the international boundary-line passes down the center of the Horseshoe or Canadian Fall. Other notable falls are those of the Genesee at Portage and Rochester, Trenton Falls, the Falls of Ticonderoga, and many falls in the Adirondack region. Along the shores of the upper portion of the Finger Lakes are countless waterfalls and picturesque glens. New York shares the great boundary lakes of Erie and Ontario with the Dominion of Canada; and beautiful Lake Champlain, with its northern end in Canada, lies partly in Vermont. Besides the boundary lakes there are thousands of small lakes and ponds lying wholly within the state, Lake George being the largest and most picturesque. The elongated lakes of the west-central part of the state, mentioned above, extend in a north-south direction and are known as the Finger Lakes. The largest of these are Cayuga, Seneca, Keuka, Canandaigua, Owasco, and Skaneateles. In the extreme southwestern part of the state is Chautauqua Lake, famed for its beautiful setting, and widely known as an educational center and summer resort. The state owns and operates canals and navigable feeders with an aggregate length of many hundreds of miles. Of these

the Erie, from Buffalo to Albany, and the Champlain, from West Troy to Whitehall, are the most important. New York has 75 m. of coast line on Lake Erie and over 200 m. on Lake Ontario, and numerous excellent lake ports, of which Buffalo is the largest. Lake navigation is therefore of great importance in the commercial and industrial life of the state. The greater part of the seacoast is on Long Island—a low, sandy coast—with numerous towns and summer resorts. The mainland, opposite the western end of Long Island, is traversed by the lower Hudson and other channels, which merge into a bay covering 14 sq. m. and containing several islands, the largest of which are Staten and Manhattan Islands. This bay, known as the Upper Bay, forms an excellent protected harbor, with an immense water front, at the outlet of the chief natural highway from the interior of the country to the ocean. It is one of the amplest, safest, and most picturesque harbors in the world. The Narrows, through which all large ships pass on their way to the ocean, is a strait about a mile in width between Long Island and Staten Island. It opens into the Lower Bay, which covers about 88 sq. m. The bar at Sandy Hook, 18 m. south of Manhattan Island, separates the Atlantic Ocean from the Lower Bay.

Climate. The climate of New York is one of extremes, hot in summer and cold in winter, and yet healthful and invigorating. The average mean annual temperature is about 47° F., though it varies from over 50° near New York City, and 48° near Lake Erie, to less than 40° in the high Adirondacks. The maximum summer heat is about 93°, but temperatures of 100° have been recorded at rare intervals. In the winter the temperature falls below zero during exceptionally cold spells. A temperature of -20° is, however, never recorded in the southern portion, seldom in the central, but is often exceeded by 5 or 10 degrees in the Adirondacks and Catskills. The average rainfall is between 40 and 45 in., but it is less than 30 in. in the Lake Champlain region and about 55 in. in New York City. About New York City the ocean moderates the cold of winter and tempers the heat of summer. The temperature along the lake shores is decidedly influenced by those large bodies of water.

Agriculture. New York has large and varied agricultural interests. It has not been able to meet the competition of the western states in the production of grains, especially wheat and barley, but it has made great advances in dairying, the poultry and egg business, market-gardening, and in the production of flowers, ornamental plants, and all nursery products. It produces enormous crops of hay and forage. In the production of orchard fruits it is second only to California; it is first in the production of small fruits, flowers and plants and nursery products; and second in the value of the forest products of farms. The leading farm products of the state (in the order of value) are: hay and

forage, cereals, fruits and nuts, potatoes and sweet potatoes and yams, other vegetables, forest products, flowers and plants and nursery products, and small fruits.

Fisheries. New York has large fishing industries, both marine and inland. The state fish hatcheries distribute millions of fish and eggs annually. Peconic Bay, at the eastern end of Long Island, yields more scallops than all the other waters of the United States. The state is extensively engaged in oyster culture and also in the culture of hard clams.

Minerals. More than thirty mineral substances are taken from the mines, quarries, and wells of New York. The chief mineral industries yield (in the order of their value) the following products: iron, clays, stone, cement, salt, petroleum, sand and gravel, and mineral waters.

Manufactures. Although New York has important interests in agriculture and mining, its predominance is most marked in manufacturing. The geographic position and topography of the state, the great natural wealth of its fields, forests, mines, and quarries, and its wonderful transportation facilities, have each had a share in giving it the first place among the manufacturing states of the Union, a place it has held since the completion of the Erie Canal in 1825. The more important industries, or groups of industries (judged by the value of output) are: clothing of all kinds, printing and publishing, foundry and machine shop products, slaughtering and meat packing, bread and bakery products, liquors, tobacco products, flour- and grist-mill products, hosiery and knit goods, millinery and lace goods, electrical apparatus and supplies, paper and wood-pulp, boots and shoes, gas, dairy products, etc.

Education. The public schools of New York are among the best in the United States in point of equipment and in the work accomplished. The University of the State of New York is the State Department of Education, charged with the general management and supervision of all public schools and all the educational work of the state. The University is governed by a Board of Regents, whose members are at all times three more than the existing judicial districts of the state. The Board of Regents is a legislative body, subordinate to the state legislature, for determining the general educational policy of the state; and a commissioner of education acts as the chief executive, advisory and supervisory, officer of the whole educational system. The regents are chosen by the legislature, one retiring each year. Education is compulsory between the ages of seven and sixteen years. Educational work is maintained chiefly by the proceeds of the Free School Tax levied in counties for common schools, and by the general state tax from which appropriations are made for education. Provision is made for industrial and trade schools, and ten normal schools and a normal college provide training for the teachers

of common and secondary schools. Among the institutions of higher learning in the state are: Columbia University (1754), in New York City; Cornell University (1868), at Ithaca; Union University (1795), at Schenectady; Hamilton College (1812), at Clinton; Colgate University (1809), at Hamilton; Hobart College (1822), at Geneva; New York University (1832), in New York City; Fordham University (1841), Roman Catholic, in New York City; College of the City of New York (1849, New York City); and many others.

Government. New York is governed under a constitution adopted in 1894, and its subsequent amendments. The question as to whether there shall be a convention to revise the constitution must be submitted to the people every twenty years, beginning with 1916. The right of suffrage belongs to all male citizens of the United States who shall have attained the age of twenty-one years and have resided in the county for four months, and in the election district for thirty days next preceding election. Conviction of bribery or of an infamous crime disqualifies, and personal identification of voters is required in New York City. **LEGISLATIVE.** The legislative power of the state is vested in a Senate and an Assembly. The legislature meets at Albany in annual sessions beginning in January. Members of the Senate are elected every two years, and of the Assembly annually. The only persons disqualified for membership in either house are those who at the time of the election or within one hundred days before the election were members of Congress, civil or military officers under the United States, or officers of any city government. Both senators and assemblymen are elected by single districts, apportioned according to population; but the representation of New York City in the Senate is limited by the provision that no county shall have more than one-third of all the senators, nor any two adjoining counties more than half of them. **EXECUTIVE.** The executive officers of the state are the governor, lieutenant-governor, secretary of state, state comptroller, state treasurer, attorney general, and state engineer and surveyor, all elected (in even-number years) for terms of two years. The governor appoints, subject to the approval of the Senate, a superintendent of public works, a superintendent of state prisons, a superintendent of insurance, a superintendent of banks, a commissioner of excise, a commissioner of agriculture, a forest, fish and game commissioner, a commissioner of health, a commissioner of labor, a state architect, a state historian, a state librarian, two public service commissions, a civil service commission, a board of charities, a commission of prisons, a commission in lunacy, three tax commissions, and other boards and commissions. The governor has the power to fill vacancies in the supreme and county courts, and in certain state offices. He may remove or suspend certain county and municipal officers on charges.

The governor's veto power may be extended to separate items in appropriation bills. The governor has power to grant reprieves, commutations, or pardons, but he is required to report his action in each case to the legislature. A candidate for the office of governor or lieutenant-governor must be at least thirty years of age and must have resided within the state for five years next preceding his election. **JUDICIARY.** The judicial system of New York as at present constituted comprises a court of appeals, a supreme court and an appellate division of the same, a court of claims, and the usual county and city courts, including county surrogates and justices of the peace. The highest court in the state is not, as in most states of the Union, the supreme court, but the court of appeals. The chief judge and associate judges of the court of appeals are elected from the state at large for a term of fourteen years. Vacancies are temporarily filled from among the justices of the supreme court by the governor. Justices of the supreme court are elected for fourteen years from the nine districts into which the state is divided. Vacancies are temporarily filled by the governor. The state is divided into four departments, for each of which there is an appellate division of the supreme court. The justices and presiding justices of the appellate division are designated from among the justices of the supreme court by the governor; the presiding justice and a majority of the other justices of each department must be residents of the department. The judges of the court of claims are appointed by the governor for a term of six years. New York City has a judicial system of its own. **LOCAL GOVERNMENT.** The state is divided into counties each (unless wholly included in a city) having a board of supervisors elected for two years, one from every town or city ward. This board has charge of the administrative and legislative affairs of the county. Other county officers are a county judge, and a county surrogate, elected for a term of six years, a treasurer, a clerk, a district-attorney, a sheriff, and from one to four coroners, elected for a term of three years.

History. Before the coming of Europeans the territory now known as New York was occupied by the Iroquois Indians (Five Nations). New York Bay was entered by Verrazano in 1524. Almost simultaneously, in 1609, Samuel Champlain, the French explorer, penetrated the northeastern part of the state; and Henry Hudson, an Englishman in the service of the Netherlands, explored the Hudson River as far as the present site of Albany. A few years later (1613-14) settlements were made by the Dutch on Manhattan Island, and the region was called New Netherlands. Among the early Dutch governors were Minuit, Wouter van Twiller, Kieft, and Stuyvesant. New Amsterdam (New York City) was founded in 1623. The Dutch colony was devastated by an Indian war in 1641. England, basing her demands on the Cabot voyages, claimed the territory occupied

by the Dutch, and in 1664 forced its surrender, and renamed it New York. New York, New Jersey, and New England were consolidated under Andros in 1686-89. New York was the scene of many events in the French and Indian Wars. It was the scene of Burgoyne's surrender (1777), and other events in the Revolutionary

War and in the War of 1812. The completion of the Erie Canal in 1825 led to a rapid development of western New York and all of the states carved from the old Northwest Territory. New York City was the capital of the United States from 1785-90, and the state capital from 1784-1797.

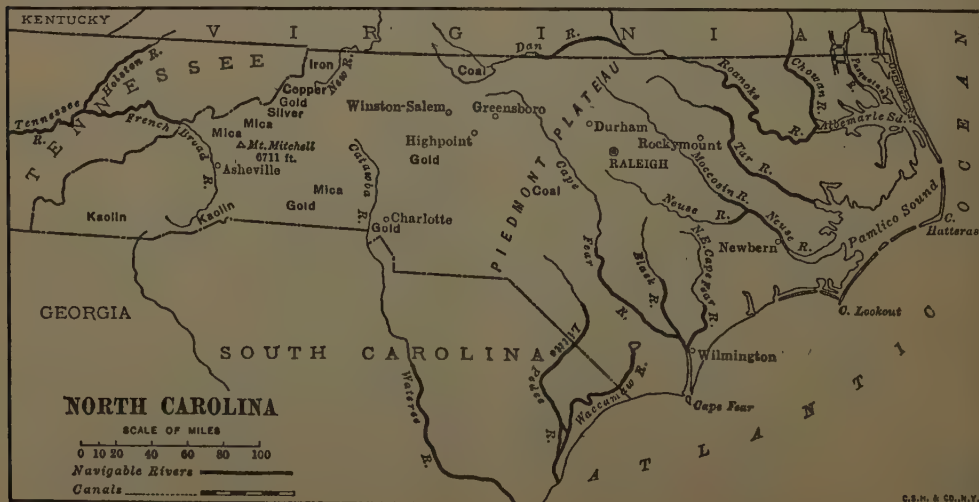
NORTH CAROLINA

NORTH CAROLINA, one of the South Atlantic States and one of the thirteen original states of the Union, lies between latitudes $33^{\circ} 50'$ and $36^{\circ} 33' N.$, and longitudes $75^{\circ} 30'$ and $84^{\circ} 25' W.$ It is bounded on the N. by Virginia; on the E. and SE. by the Atlantic Ocean; on the S. by South Carolina and Georgia; and on the W. and NW. by Tennessee. In size, North Carolina ranks twenty-seventh among the states of the Union, having a gross area of 52,426 sq. m., of which 3,686 sq. m. are water surface. Its length from east to west (about 503 miles) is greater than that of any other state east of the Mississippi River.

Coast. The coast proper of North Carolina is fenced from the ocean by a chain of low sandy islands enclosing shallow lagoons and sounds. From these islands project Capes Hatteras, Lookout, and Fear, whose outlying shoals are dangerous to navigation. Between the chain of islands and the mainland are, Currituck, Albemarle, Pamlico, and other sounds—shallow, brackish, and almost tideless areas of water connected with the sea through a few inlets, such as Ocracoke, Hatteras, and New Inlets.

Relief. North Carolina embraces three of the leading topographical regions of the eastern portion of the United States: the Coastal Plain Region; the Piedmont Plateau Region; and the Appalachian Region. The Coastal Plain extends inland from 80 to 150 miles, meeting the Pied-

mont Region at what is known as the "fall-line." The surface of the eastern part of this region is low, nearly level, and is known locally as the Flatwoods district. Toward the west the land becomes more rolling, and there are some hills along the western border. The "fall-line" has a very irregular course across North Carolina, but its general direction is SW. from the Falls of the Roanoke, between Halifax and Northampton Counties, to Anson County on the southern boundary. The Piedmont Plateau Region extends westward from this line to the Blue Ridge escarpment, and occupies about 20,000 sq. m. in the middle of the state. Its elevation ranges from about 350 ft. along the eastern margin to altitudes of 1,200 ft. in the western portion. The Blue Ridge escarpment, rising precipitously 1,000-1,500 ft. and more above the Piedmont Plateau consists of an intricate series of ranges and cross ranges, and contains the most elevated summits east of the Rocky Mountains. It includes the high Unaka Mountain Range, known in different parts by local names such as Iron Mountains, Bald Mountains and Great Smoky Mountains. Mt. Mitchell (6,711 ft.), of the Black Mountains, a short cross range extending N. from the Blue Ridge through Yancey County, is the highest summit of the Appalachian system. Most of the mountains are clothed to their tops with thick forests, but the rounded summits of some are covered with



turf. All this region, known as the "land of the sky," is a favorite summer and winter resort.

Drainage. The streams of the Flatwoods district have shallow channels, and drainage is poorly established. In the more elevated portion of the Coastal Plain section the currents are faster, the channels deeper, and drainage is excellent. Between the estuaries of the rivers are extensive tracts of swamp land. The Piedmont section is practically devoid of swamps, and is well drained by numerous streams. The Blue Ridge is the principal water parting of the state. On its southeastern slope rise the Broad, the Catawba, and Yadkin Rivers, which reach the Atlantic through the state of South Carolina. In the northwestern part of the Piedmont Plateau Region rises the Dan, which crosses the boundary into Virginia, where it becomes a tributary of the Roanoke and its waters are returned to North Carolina near the "fall-line." The principal rivers having their courses wholly within the state are: the Cape Fear, the Neuse, and the Tar. West of the Blue Ridge, the Hiwassee, the Little Tennessee and the French Broad Rivers flow west or northwest into the Tennessee, and farther north are the headwaters of the New River, which empties into the Ohio. In the mountain region and in the Piedmont Plateau Region the rivers have numerous falls and rapids, which afford immense water power. Altogether the rivers of North Carolina afford several hundred miles of inland navigation. In the Coastal Plain are a few shallow lakes lying in the midst of swamps.

Climate. The annual temperature for the state (below an elevation of 4,000 ft.) is nearly 59° F. In the SE. corner the climate approaches the subtropical, with a mean annual temperature of 64° F., but in the SW. part of the state it is only 50° F. Many places in the mountain belt are noted as health and pleasure resorts. The coast region has a hot, damp, summer climate, except in the pine woods sections. The average precipitation for the state is 52 in. a year. The winds are variable.

Agriculture. Of the state's entire land area, more than seven-tenths (71.9 per cent) is in farms. There has been during the last decade a decrease in farm acreage and in the average size of farms, but the number of farms has increased and the total value of all farm property has increased 130 per cent. In recent years there have been several important changes in the crops raised. The development of cotton manufacturing in the south and the utilization of cottonseed-oil and meal have given a great impetus to cotton culture; and the discovery of the adaptability of much of the cotton land to the culture of tobacco has resulted in the development of a vast tobacco industry. The clearing of areas formerly occupied by pine forests, and improved transportation facilities have resulted in the growth of market-gardening for northern markets. The leading crops (in the order of their importance as judged by value)

are: cotton, corn, tobacco, cottonseed, peanuts, hay and forage, wheat, sweet potatoes and yams, potatoes, and oats.

Forests. North Carolina has still great quantities of merchantable timber, especially in the mountain region and on the Coastal Plain. The trees of the greatest commercial value are oak, chestnut and yellow pine.

Fisheries. The coastal waters and the lower courses of the rivers furnish important fishing grounds. The fisheries are chiefly of shad, oysters, mullet, clams, alewives, black bass, menhaden, croakers, and blue fish.

Minerals. Minerals in considerable variety, but not in great quantity, are found in North Carolina, including corundum, mica, bismuth, talc, soapstone, graphite, coal, phosphate rock, gold and silver. The quarries yield granite, limestone, and sandstone. Monazite and zircon are also found. The clay products of the state are the most valuable of the mineral products.

Manufactures. The harbors, rivers, and railway systems of North Carolina are important factors in furthering its manufacturing and commercial interests. The streams also furnish abundant water power, the use of which has increased during recent years. The large local supply of fuel is another factor which favors manufacturing. The principal industries of the state (given in the order of value of product) are: textiles (chiefly cotton goods), tobacco manufactures, lumber and timber products, cottonseed-oil and cake, flour- and grist-mill products, furniture and refrigerators, fertilizers, leather, hosiery and knit goods, and carriages and wagons.

Education. The present public school system of North Carolina is supervised by a state board of education, consisting of the governor, lieutenant-governor, secretary of state, treasurer, auditor, attorney-general, and superintendent of public instruction. In the counties there is a county board of education, and there is a local school committee of three in each township. School attendance between the ages of eight and fourteen for sixteen weeks each year was made compulsory for the entire state in 1914. At the head of the state system of education is the University of North Carolina, at Chapel Hill (1789), one of the oldest state universities in the country. Other state educational institutions are: the College of Agriculture and Mechanic Arts, at West Raleigh; the State Normal and Industrial College for Women, at Greensboro; and the East Carolina Teachers Training School, at Greenville. For the higher education of negroes the state maintains an Agricultural and Mechanical College at Greensboro, and Normal and Industrial Schools at Fayetteville, Elizabeth City, and Winston. The more important secondary schools are: Wake Forest College (Baptist), at Wake Forest; Davidson College (Presbyterian), at Davidson; Biddle University (Presbyterian—for negroes), at Charlotte; Greensboro Female College (Meth-

odist Episcopal); at Greensboro; Guilford College (coeducational—Society of Friends), near Greensboro; Trinity College (coeducational—Methodist), at Durham; Lenoir College (Lutheran), at Hickory; Catawba College (Reformed), at Newton; St. Mary's College (Roman Catholic) at Belmont; Shaw University (Baptist—for negroes), at Raleigh; Elon College (Christian), at Elon; and Livingston College (Methodist—for negroes), at Salisbury.

Government. North Carolina is administered under the constitution of 1868, with various amendments since that time. All male citizens of the United States, resident in the state for two years and in the county for six months next before the election, and registered, have a vote. For registration the requirements are payment of poll-tax and ability to read and write in English (a test not imposed on descendants of voters of 1867). **EXECUTIVE.** The governor is elected by popular vote for four years, and is ineligible to succeed himself in office. He is assisted in administration by a council of state, a kind of administrative cabinet, consisting of the secretary of state, auditor, treasurer and the superintendent of public instruction. Other executive officers are: lieutenant-governor, attorney-general, a bureau of labor statistics, and a corporation commission. The governor appoints certain minor executive officials, subject to the confirmation of the Senate. Judges, heads of departments, and executive boards are elected. The governor and lieutenant-governor must at the time of their election be at least thirty years of age, must have been citizens of the United States for five years, and residents of the state for two years. **LEGISLATIVE.** The legislative body of the state is known as the General Assembly, composed of a Senate and a House of Representatives. Its sessions are held at Raleigh, biennially, beginning on the Wednesday after the first Monday in January (odd number years). The session is limited to 60 days. Senators are elected biennially by senatorial districts as nearly as possible equal to one another in population. Members of the House of Representatives, elected biennially, are chosen by counties according to their population, each county having at least one representative, no matter how small its population. A senator

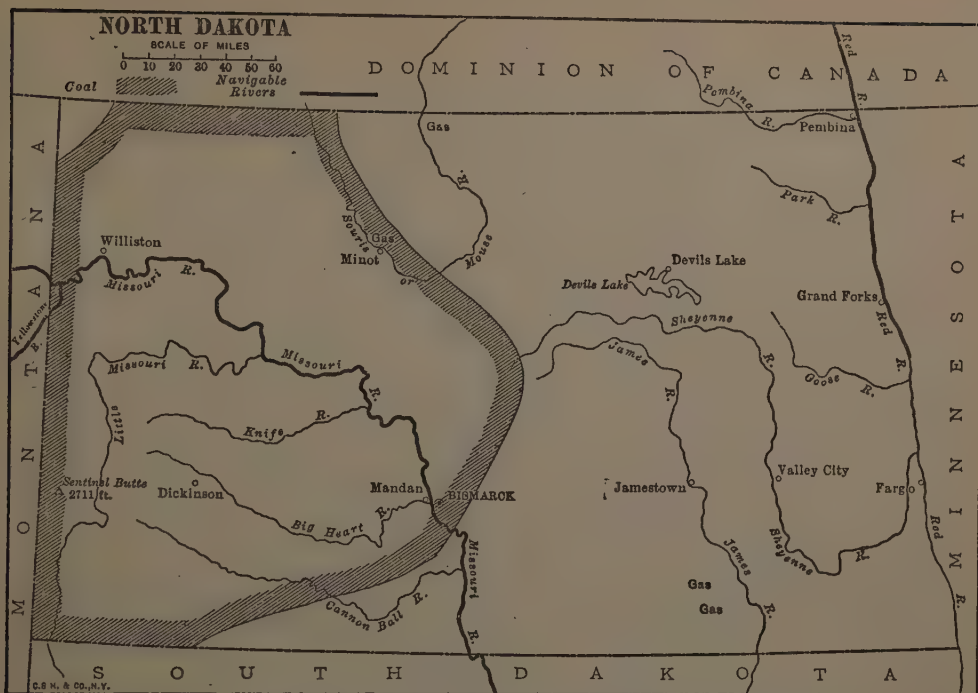
must at the time of his election be at least twenty-five years of age, and must have been a resident and citizen of the state for at least two years, and a resident in his district for one year immediately preceding his election. A representative must be a qualified elector of the state, and must have resided in his county for at least one year immediately preceding his election. Extra sessions may be called by the governor on the advice of the council of state, are limited to twenty days, but may be extended under certain limitations. **JUDICIARY.** There is a supreme court, consisting of a chief justice and four associates, elected by popular vote for terms of eight years; and a superior or circuit court composed of sixteen judges, elected by the people in each of sixteen districts for terms of eight years. **LOCAL GOVERNMENT.** The county officials are the sheriff, coroner, treasurer, registrar of deeds, surveyor, and five commissioners, elected for two years; the commissioners supervise the penal and charitable institutions, schools, roads, bridges, and finances of the county. Subordinate to the commissioners are the township boards of trustees, composed of a clerk and two justices of the peace.

History. Unsuccessful attempts were made to colonize the Carolina region under the auspices of Sir Walter Raleigh in 1584-87. The first permanent English settlement was made by Virginians at Albemarle, on the Chowan River, about 1660. The territory was granted to proprietors in 1663 and 1665. An attempt was made to introduce a constitution framed by Shaftsbury and Locke in 1669, but it ended in failure. A Royal Province was formed in 1729, when North and South Carolina were separated. The "Mecklenburg Declaration of Independence" was passed in 1775; it is claimed that this document formed the model for the Declaration of 1776. North Carolina was the scene of several battles in the Revolution (1780-81); rejected the United States Constitution in 1788, but adopted it in 1789; seceded May 20th, 1861. It was the scene of various engagements and military operations in the Civil War, particularly in connection with Burnside's expedition in 1862, the capture of Wilmington and other ports, and Sherman's March in 1865; and was readmitted to the Union in July, 1868.

NORTH DAKOTA

NORTH DAKOTA, a West North-Central State of the United States, lies between latitudes 45° 56' and 49° N., and longitudes 96° 28' and 104° 3' W. It is bounded on the N. by the Dominion of Canada; on the E. by Minnesota; on the S. by South Dakota; and on the W. by Montana. North Dakota has an extreme length from east to west of 360 m., and an extreme width from north to south of 210 miles. In gross area it ranks sixteenth among the states of the Union (70,837 sq. m., of which 654 sq. m. represent water surface).

Relief. North Dakota lies in the Prairie Plains and Great Plains Provinces of the United States, the two provinces being separated from each other by an elevated belt (Coteau du Missouri), which from the northwest corner crosses the state in a southeasterly direction. All north and east of the Coteau du Missouri is in the Prairie Plains section, that to the southwest in the Great Plains Province. Along the eastern margin of the state, occupying a belt from 30 to 60 m. in width, lies the western portion of the great Red River Valley. In this section are



found the lowest elevations of the state, which range from about 800 ft. at Pembina in the northeast corner, to about 1,000 ft. (above sea level) at Wahpeton in the extreme southeast. Immediately to the west of this level valley lies a higher region of rolling upland, from which the valley is separated in the north by an abrupt slope rising to a height of from 300 to 500 ft. above the surrounding country, the Manitoba escarpment, the Pembina Mountains—low hills about 30 m. west of the Red River—forming the southern extension of this escarpment. From these hills southward the division between the valley and the plateau is less abrupt, and in Walsh County it merges into prairie. The ascent to the upper plain then becomes very gentle until it reaches the southeastern portion of Sargent County, when it changes into the more abrupt Coteau des Prairies, a plateau about 2,000 ft. above sea level. This high western part of the Prairie Plains Province is a region of gently rolling prairies broken by but one group of hills, the Turtle Mountains, which rise from 300 to 400 ft. above the general level near the center of the northern boundary. West of the Coteau du Missouri the surface rises gradually westward until it attains a general level of about 2,700 feet. West of the Missouri River a considerable part of the surface overlies beds of lignite, and the prairies are broken in the vicinity of streams by deep ravines and gulleys—the result of erosion. In the “Bad Lands,” *Les Terres Mauvaises* of the

early French explorers—so named on account of the difficulties which here met the traveler—the surface has been carved into fantastic forms, and offers many picturesque features, including petrified forests, and other evidences of a vegetable growth now extinct.

Drainage. There are two drainage systems within the state of North Dakota—the Red River (of the North) and its tributaries, and the Missouri River and its tributaries. The chief tributaries of the Red River, wholly within the state, are the Sheyenne, the Goose, the Park, and the Pembina. A part of the Red River system is the Souris, or Mouse River which, rising in Canada, crosses the international boundary near the meridian of 102° W. longitude, flows southeast for about 70 m., then turns to the north and near the 101st meridian reenters British territory and joins the Assiniboin, which in turn enters the Red River at Winnipeg. The Missouri River crosses the western boundary near the 48th parallel of N. latitude, and after pursuing a winding course in a general southeasterly direction, enters South Dakota near the center of the boundary line. The James River, flowing southward into South Dakota, is the Missouri's only important eastern tributary within the state. From the west the Missouri receives the waters of the Little Missouri, the Knife, the Big Heart, and the Cannon Ball Rivers. All that part of the state lying west of the Pembina Mountains and east of the Souris River is practically without

river drainage, and for its surface and subsurface drainage Devil's Lake, a very irregular and strongly saline body of water having an area of about 400 sq. m., forms a natural reservoir. The entire region west of the Red River Valley and east of the Missouri River is dotted with small lakes, many of which are strong with salt and alkali.

Climate. North Dakota has a dry, invigorating, and remarkably healthful climate. The uniformity of topography makes the ranges of temperature for different parts of the state very nearly the same, and between the extreme northern and southern sections there is a range of only 6 or 7 degrees F. High temperatures in summer and low temperatures in winter are the rule. The mean annual temperature for the state is 39° F., with a maximum of 110° recorded for the summer and a minimum of -54° for the winter. At Jamestown, in the central part of the state, the mean annual temperature is 40°; the mean for the winter 10°, and the mean for the summer 67° F. The summers are short, the winters long and cold. High winds are frequent and tornadoes are not unknown. The rainfall for the whole state is sufficient for growing green crops without irrigation, the normal annual precipitation ranging from about 15 in. at the western boundary to about 20 in. on the eastern boundary. In the extreme western part of the state irrigation is practised to a limited extent.

Agriculture. The alluvial and lacustrine soils of the Red River Valley are predominantly black to dark brown clay loams and clays characterized by a highly calcareous subsoil. These constitute the great spring wheat soils of North Dakota. The soils west of the valley consist of drift, and are well suited to the growing of grain. The drift becomes thinner towards the west, and finally disappears in the semiarid regions of the Missouri River Valley. In this region the soils of sand and clay are much finer than the drift, and are very productive when sufficiently watered. Agriculture is by far the most important industry of the state, but owing to climatic conditions it is limited to a few staple crops. The growing season is too short for maize or Indian corn, and no winter wheat can be grown. The climate is too severe for the larger fruits—such as apples, pears, peaches, plums, and grapes—but the small hardy fruits thrive and are grown in abundance. The leading crops of the state (in the order of their importance as judged by value) are: wheat, oats, flaxseed, hay and forage, barley, corn, and potatoes. Wheat represents in both acreage and value more than two-thirds of all cereals combined.

Minerals. The mineral resources of North Dakota are inconsiderable. Beds of lignite underlie a large portion of the western half of the state, but the coal is poor in quality and soon crumbles into powder on being exposed to air. Cement is made, and the clay products of the

state are used in the manufacture of tile and brick. Sandstone occurs in some areas, as do also granite and gneiss, but these materials are not quarried.

Manufactures. Although North Dakota is primarily an agricultural community, the total value of manufactured products of the state has increased steadily at each census since 1899. Prior to that year manufacturing was limited almost entirely to the so-called neighborhood, hand, and building industries; and with the exception of the flour-mill and grist-mill industry, practically the entire production was made for local consumption. The latter statement continues to be true to a considerable extent. The most important industries (arranged in the order of value of products) are flour-milling and grist-milling, and the manufacture of butter, cheese, and condensed milk.

Education. At the head of the public school system is a superintendent of public instruction, chosen for two years. He, with the governor and president of the State University, constitutes a high school board having supervision of the secondary schools. In each county there is a county superintendent, elected biennially, and in each public school district is a board of directors. The minimum school term allowed by law is seven months, and the schools are open to all pupils between the ages of six and twenty-one years of age. Attendance is compulsory. Higher education is provided by three normal schools, a state agricultural college at Fargo, and the University of North Dakota at University. The state maintains a school for the deaf at Devil's Lake, a school of forestry at Bottineau, and a scientific school at Wahpeton. Among other private institutions may be mentioned Fargo College (non-sectarian), at Fargo; and Wesleyan College (Methodist Episcopal), near Grand Forks.

Government. The state is governed under the constitution adopted in 1889, and its amendments. All citizens of the United States residing in North Dakota are declared to be citizens of the state. The right of suffrage belongs to all male citizens twenty-one years of age and over, who are citizens of the United States or have declared their intention to become such, and who have resided in the state one year, in the county six months, and in the voting precinct ninety days preceding election. Civilized Indians who have severed their tribal relations two years before election are entitled to vote. Women may vote for all school officers and upon all questions relating solely to school matters, and are eligible to any school office. **Executive.** The executive officers of the state are the governor, lieutenant-governor, secretary of state, auditor, treasurer, superintendent of public instruction, commissioner of insurance, three commissioners of railways, attorney-general, and commissioner of agriculture and labor. Each of these officers is chosen biennially. The governor and lieutenant-governor must be at least thirty years of age,

and all other officers at least twenty-five. The governor has a limited pardoning power, and may veto appropriation bills by items, but his veto may be overridden by a two-thirds vote of each house. **LEGISLATIVE.** The state legislature consists of a Senate and House of Representatives. It meets at Bismarck biennially (even number years), the session being limited to 60 days. Members of the Senate are elected for four years, and half the number retire biennially. Members of the House of Representatives are chosen for two years. The minimum age for senators is twenty-five years, and for representatives twenty-one years. **JUDICIARY.** The state judiciary consists of the supreme court, district courts, county courts, municipal courts, and courts of justice of the peace. The supreme court consists of five judges, elected by popular vote for ten years. There are twelve district courts, each having one judge, elected for four years. A judge of the county court is chosen for two years. **LOCAL GOVERNMENT.** For the administration of local government the state is divided into counties, and in those which have not adopted a township organization, county affairs are administered by a board of county commissioners; where the township organization has been adopted the county govern-

ment is administered by the chairman of the several township boards. For each county there are a judge, clerk, register of deeds, auditor, treasurer, sheriff, and state's attorney.

History. North Dakota was visited by traders of the Hudson Bay Company towards the close of the 18th Century. It formed a part of the region ceded by France to the United States by the Louisiana Purchase of 1803. It was successively a part of the District of Louisiana, of the Louisiana Territory, the Missouri Territory, the Territory of Michigan, Wisconsin Territory, Iowa Territory, and of Minnesota Territory. The first permanent settlement was made by a company of Scottish Highlanders at Pembina in 1812. These people had formerly been located at Winnipeg and supposed their new settlement was in British Territory. The Territory of Dakota was created in 1861 and included the present Dakotas and portions of Wyoming and Montana. In 1863 the boundaries of the Dakotas were fixed at practically their present limits. The settlement of the territory was impeded by the Civil War and also by Indian hostilities. Rapid development began in 1872; the territory was divided into North and South Dakota, and both states entered the Union as states in 1889.

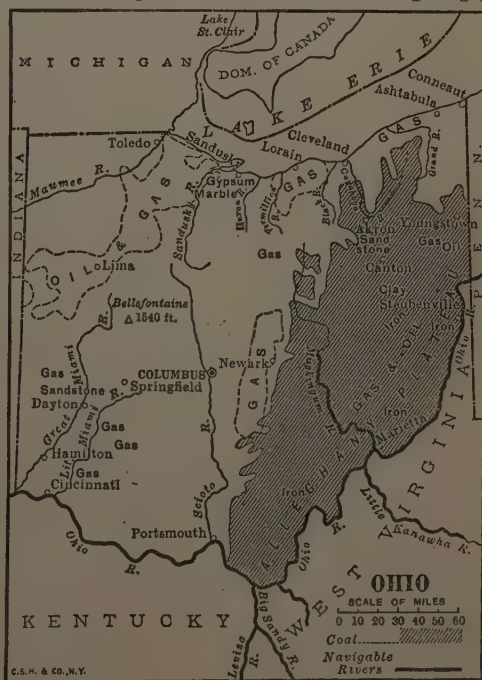
OHIO

OHIO, an East North-Central State of the American Union, lies between latitudes 38° 26' and 41° 58' N., and longitudes 80° 30' and 84° 49' W. It is bounded on the N. by Michigan and Lake Erie; on the E. by Pennsylvania and West Virginia; on the S. by West Virginia and Kentucky; and on the W. by Indiana. The state has an extreme length from north to south of over 210 m., a width from east to west of 220 m., and a gross area of 41,040 sq. m., of which 300 sq. m. represent water surface; in size, it ranks thirty-fifth among the states of the Union.

Coast. Lake Erie forms the northern boundary for a distance of 230 m. and several first-class harbors have been formed at the mouths of some of the rivers emptying into it. At the western end of the lake are Sandusky and Maumee Bays, each with a good natural harbor, and north of these are a number of small islands which are included in the state.

Relief. The extreme eastern part of the state consists of a border of the Appalachian Plateau, gently rolling and hilly; the rest of the state forms the northeast portion of the low plateau which constitutes the upper part of the Mississippi Drainage Basin. As a whole, the state may be described as an extensive and moderately undulating plain, with an average elevation of about 850 ft. above the sea. A line of elevation extends from the northeastern corner, in a south-westerly direction, to Darke county, about the middle of the western boundary line. This divide has an average elevation of about 1,100 feet. The highest point in the state (Belle-

fontaine, 1,540 ft.) is in Logan county, in the west-central part. North of the dividing ridge,



the surface gradually declines toward Lake Erie (elevation 573 ft. above the sea). South of the dividing ridge, the slope towards the Ohio is somewhat steeper. Southeast Ohio is rugged and hilly, in places deeply cut into a labyrinth of narrow ravines. The Ohio and many of its tributaries have cut for themselves deep trough-like valleys, and their banks have a remarkably bold and picturesque aspect.

Drainage. The dividing ridge, mentioned above, separates the waters flowing to Lake Erie from those flowing to the Ohio River. Nearly all of the streams of the northeastern part of the state have a rapid current. Those that flow directly into the lake are short, but several of the rivers of this region, such as the Cuyahoga and the Grand, follow circuitous courses and flow through narrow valleys with numerous falls and rapids. In the north-central part of the state, the Black, the Vermilion, and the Huron Rivers have their sources in swamps on the waterparting, and flow directly to the lake through narrow valleys. The plains of northwest Ohio are drained chiefly by the Sandusky and Maumee Rivers, with their tributaries. South of the waterparting the average length of the rivers is greater than that of those to the north of it. The Ohio River, in its course of 435 m. along the southern boundary line, falls from 665 ft. above the sea on the eastern boundary, to 433 ft. at the southwestern angle of the state. The main tributaries of the Ohio are: the Muskingum, draining the eastern part of the state; the Scioto and its tributaries, draining the central and middle portions; and the Little Miami and the Great Miami, draining the western portion. The Ohio is navigable from Pittsburgh to its mouth, except in the low stages of water in summer, or when it is closed by ice in winter. Ohio has no large lakes within its limits, but there are several small ones on or near the waterparting.

Climate. The mean annual temperature of Ohio is nearly 51° F.; in the north, 49.5°, and in the south, 53.5° F. Except where influenced by Lake Erie, the temperature is subject to great extremes. July is the warmest month; and, in most parts of the state, January is the coldest. The normal annual precipitation for the entire state is 39 in.; it varies from about 30 in. at Toledo, to 42 in. at Marietta. Nearly 60 per cent of it comes in the spring and summer. The average annual fall of snow is about 36 in. in the north, and 21 in. in the south. The prevailing winds in most parts of the state are westerly, but sudden changes as well as extremes of temperature are caused by the frequent shiftings of the winds from northwest to southwest, and from southwest to northwest. At Cleveland and Cincinnati, the prevailing winds are from the southeast.

Agriculture. The statistics of the United States Census Bureau show that Ohio is among the leading agricultural states of the Union. Indian corn, wheat, and oats are grown in all

parts of the state; but the western half produces about three-quarters of the Indian corn and two-thirds of the wheat; and in the northern half, especially in the northwest corner, are the best oat producing counties; the northeast quarter ranks highest in the production of hay. Domestic animals are evenly distributed throughout the state. Dairying and the production of eggs are important industries in all sections. Most of the tobacco is grown in the counties on or near the southwest border. The general character of Ohio agriculture is indicated by the fact that about three-fifths (59.9 per cent) of the total value of crops is contributed by the cereals; somewhat less than one-fifth (18.4 per cent) by hay and forage; and somewhat less than one-tenth (9 per cent) by potatoes and other vegetables. The remainder, representing in value 12.7 per cent of the total, consists mostly of tobacco, fruits and nuts, and forest products. The leading crops (in the order of their importance as judged by value) are corn, hay and forage, wheat, oats, vegetables (other than sweet potatoes and yams), potatoes, and tobacco.

Forests. The state was originally covered with a dense forest, mostly of hardwood, and although the merchantable portion of this has been practically cut away, there are still undergrowths of timber, and a great variety of trees. The white and other varieties of oak, several varieties of hickory, ash, poplar, pine, elm, birch, locust, cherry, beech, and black walnut, are among the trees found in the woodland areas.

Fisheries. The only commercial fishing of importance is in Lake Erie. Propagation facilities are being greatly improved, and there are stringent laws for the protection of immature fish. Inland streams and lakes are well supplied with game fish.

Minerals. Ohio has extensive mineral resources, the principal products being bituminous coal and petroleum. The state also ranks high in the production of natural gas, sandstone, limestone, and gypsum. The coal fields, having an area of about 12,000 sq. m., are in the eastern half of the state. Two of the most productive petroleum fields of the United States are in Ohio—the Appalachian field in the eastern and southern parts of the state, and the Lima-Indiana field in the northwestern part. Natural gas abounds in the eastern, central, and northwestern parts of the state. There is some iron ore in the eastern and southeastern parts of the state, but the output is steadily decreasing. Ohio produces valuable clays and glass-sands.

Manufactures. Ohio is largely a manufacturing state, its industrial prominence being due, in the main, to its many natural resources—fertile soil and abundant supplies of coal, natural gas, and petroleum. Taken in the order of their value, the leading manufacturing industries are: iron and steel, foundry and machine-shop products, slaughtering and meat packing, flour-mill and grist-mill products, printing and publishing,

automobiles, lumber and timber products, boots and shoes, tobacco, etc.

Education. The public schools of Ohio are under the general supervision of a state commissioner of common schools. Each school district has its own board of education elected by popular vote. School attendance is compulsory for children between the ages of eight and fourteen. School revenues are derived from the sale and rental of public lands granted by Congress, from the sale of salt and swamp-lands devoted by the state to such purpose, from a uniform levy on the taxable property in the state, from local levies in township districts, from certain fines and licenses, and from tuition fees paid by non-resident pupils. The Ohio University at Athens, the Miami University at Oxford, and the Ohio State University at Columbus, are supported in large measure by the state. Wilberforce University (for negroes), near Xenia (under the control of the African Methodist Episcopal Church), is in part supported by the state, which maintains three normal and industrial departments. Normal colleges, supported by the state, have also been created in connection with Ohio and Miami Universities. Among many other colleges and universities in the state are Western Reserve University, at Cleveland; the University of Cincinnati, at Columbus; and Oberlin University, at Oberlin.

Government. Ohio is governed under the constitution of 1851 and its subsequent amendments. The right of suffrage belongs to all male citizens of the United States who have resided, in the state one year, in the county thirty days, and in the township twenty days next preceding election. Women who possess the usual qualifications required of men may vote for members of boards of education, and are eligible to the same offices. **EXECUTIVE.** The executive officers of the state are the governor, lieutenant-governor, secretary of state, auditor, treasurer, attorney-general, adjutant-general, a commissioner of insurance, and a superintendent of education. The governor is elected in November of even number years for a term of two years. His veto power extends not only to items in appropriation bills, but to separate sections in other measures; and in addition to the customary provision for the passing of a bill over the governor's veto by a two-thirds vote of each house, it is required that the votes for re-passage in each house must not be less than those given on the original passage of the bill. The governor is commander-in-chief of the state's military and naval forces, except when they are called in the service of the United States. He grants pardons and reprieves on the recommendation of the State Board of Pardons. In case of the governor's death, resignation, or impeachment, the officers next in succession are the lieutenant-governor, the president of the Senate, and the Speaker of the House of Representatives, in the order named. **LEGISLATIVE.** The state legislature consists of a

Senate and a House of Representatives. It meets at Columbus, biennially (odd. number years), and no limit is set by law to the length of session. Members of both houses are elected for terms of two years. They must be residents of their respective counties or districts for one year preceding election, unless absent on public business of the state or of the United States. The Senate passes upon executive appointments, and tries impeachment cases brought before it by the House of Representatives; otherwise the powers of the two houses are equal in every respect. **JUDICIARY.** The judicial department of the state is composed of a supreme court of seven judges, eight circuit courts (of three judges each), ten common pleas courts, the circuit court of Cincinnati, probate courts, courts of insolvency in Cuyahoga and Hamilton Counties, juvenile courts, justices of the peace courts, and municipal courts. All judges are elected by direct popular vote, the judges of the supreme court being chosen at large. Judges of the supreme court, circuit courts, and common pleas courts serve for terms of six years; probate judges and justices of the peace, for terms of four years. **LOCAL GOVERNMENT.** The county and the township are the units of local government. The chief county authority is vested in a board of three commissioners, elected for terms of two years. Other county officers are the sheriff, treasurer, and coroner, elected for two years; the auditor, recorder, clerk of courts, prosecuting-attorney, surveyor and infirmary directors, elected for two years. The chief township authority is vested in a board of three trustees, elected by popular vote for two years; other township officials are the clerk, treasurer, assessor, supervisor of roads, justices of the peace, constables, board of education, and board of health. Municipalities are divided into two classes—cities and villages—the former having a population of 5,000 or more. The chief authority in both cities and villages is a board of control, composed of the mayor and the directors (appointed and removable by the mayor) of two municipal departments—public service and public safety; a municipal civil service commission of three members; and a city auditor, treasurer, and solicitor.

History. Ohio was part of the Northwest Territory which, besides Ohio, embraced what are now the states of Michigan, Indiana, Illinois, Wisconsin, and the northeast corner of Minnesota. It was discovered by Europeans late in the first half of the 17th century, and was claimed by both France and England. France founded her claim on exploration and occupation covering the period between the middle and the close of the 17th Century; England based her claim to the same territory on the discovery of the Atlantic coast by the Cabots, and upon the Virginia, Massachusetts, and Connecticut charters, under which these grants extended westward to the Pacific Ocean. New York also had a claim to the territory. The contest between France

and England, known as the Seven Years' War, ended in the cession of the entire Northwest to Great Britain. After winning the Northwest Territory, however, Great Britain no longer recognized those claims of her colonies to this territory which she had asserted against France, and finally annexed the region to the Province of Quebec. This embittered the colonies and was one of the grievances which brought on the War of Independence, and during that war, the Northwest was won for the Americans by George Rogers Clark. Marietta (founded in 1788), at the mouth of the Muskingum, is re-

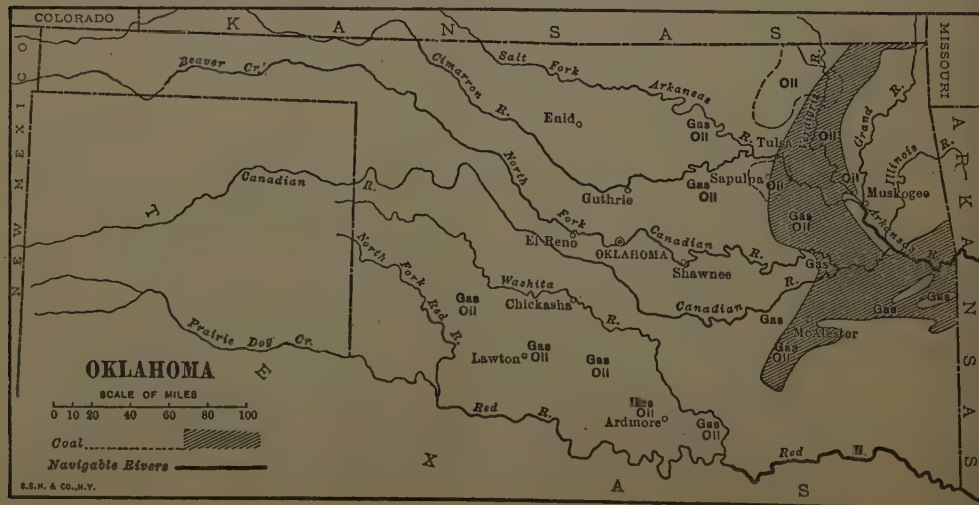
garded as the oldest permanent settlement of the state, and the first territorial government was established there. The state was admitted to the Union in 1803. Ohio was the scene of many important actions during the War of 1812, among them Commodore Perry's victory on Lake Erie, in 1813. In no other state have been found so many evidences of man's antiquity as exemplified in implements of stone, copper, bone, and clay, while the most extensive and elaborate systems of earthworks in America have been found at Newark, near Chillicothe, and on the Miami bluffs, near Waynesville.

OKLAHOMA

OKLAHOMA, a West South-Central State of the United States, lies between latitudes 33° 33' and 37° N., and longitudes 94° 30' and 103° W. The greater portion of the state is bounded on the west by the 100th meridian; the only part lying west of that is a strip of land about 35 m. wide occupied by Beaver, Texas, and Cimarron Counties. Oklahoma is bounded on the N. by Colorado and Kansas; on the E. by Missouri and Arkansas; on the S. by Texas; and on the W. by Texas and New Mexico. In gross area (70,057 sq. m., of which 643 sq. m. represent water surface) it ranks seventeenth among the states of the Union.

Relief. The topography of the state is quite varied, but in general terms the surface may be described as a vast rolling plain, having a gentle southern and eastern slope. The elevations range from less than 400 ft. above sea level in southeastern Oklahoma to nearly 5,000 ft. in the northwestern part of the state, but the mean elevation for the whole state is about 1,300 feet. The Ozark Mountain Uplift enters Oklahoma near the middle of the eastern boundary and extends in a general westerly direction half way

across the state. It forms a chain of hills which gradually decrease in height towards the west. In the south-central part of the state is an elevated tableland, known as the Arbuckle Mountains, which in its western portion attains an elevation of about 1,350 ft. above the sea, and 400-500 ft. above the surrounding plains. To the northwest of the Arbuckle plateau are the Wichita Mountains, a straggling range of peaks extending a distance of about 70 m., from Lawton in Comanche County, northwestward to Beckham County. The highest peaks of this range are not more than 1,500 ft. above the plain. In Blaine and Canadian Counties are a group of hills known as the Chautauqua Mountains, having their main axis parallel with the North Fork of the Canadian River. With the exception of the clusters of hills above described, the western portion of the state consists almost entirely of wide treeless plains. The extreme northwestern part of the state is a lofty tableland having an altitude of 3,000-5,000 ft. above the sea, and forming a part of the Great Plains Region east of the Rocky Mountains. West of the Neosho, or Grand River, and north of the



Arkansas, the prairies have been much worn and eroded by numerous small streams; south of the Arkansas the evidences of erosion are less marked. A striking physiographic feature of the state is found in the salt plains of the northwest, of which the most noted is the Big Salt Plain of the Cimarron River.

Drainage. The drainage is almost wholly from northwest to southeast. The southern part of the state is drained by the Red River and its chief tributaries, the North Fork, the Washita, and others. The rest of the state is drained by the Arkansas River and its tributaries. The Arkansas enters the state from the north, follows a general southeasterly course, and cuts the eastern boundary near its center, where it enters the state of Arkansas. Its tributaries from the north and east are the Verdigris, the Neosho or Grand, and the Illinois. From the south and west it receives the waters of the Salt Fork, the Cimarron, and the Canadian with its numerous tributaries. The Arkansas and the Red River are navigable for boats of light draft for some distance, thus giving water connection with the Mississippi.

Climate. The climate of the state is continental in type, with great annual variation of temperature. The western and central portions of the state, on account of their greater elevation and greater distance from the Gulf coast, are cooler and drier than the eastern. At Oklahoma City, in the center of the state, the mean annual temperature is 59° F. The mean for the summer is 78° with an extreme record of 104°; the mean for the winter is 38° with an extreme record of -17° F. The mean annual precipitation for the state is 31.7 in., the variation between the east and the west being about 12 inches. The rainfall ranges from about 17 in. at the western boundary to about 40 in. at the eastern boundary, and is sufficient in the greater part of the state for the growing of most crops without irrigation. In the extreme western part of the state irrigation is practised to a limited extent.

Agriculture. Oklahoma is mainly an agricultural state, and nearly 70 per cent of the total area of the land is in farms. The general character of Oklahoma agriculture is indicated by the fact that somewhat more than one-half (53.8 per cent) of the total value of crops is contributed by the cereals, and somewhat less than one-third (30.9 per cent) by cotton. The remainder, representing 15.3 per cent of the total, consists mostly of hay and forage, and potatoes and other vegetables. The principal crops (given in the order of their importance as judged by value) are: corn, cotton, wheat, hay and forage, oats, cottonseed, broom-corn, and Kafir corn. Among other crops, flax is widely grown. The raising of flowers and plants and of nursery products, and the cultivation of small fruits and of orchard fruits, grapes, nuts, and tropical fruits, are of increasing importance. Stock-raising is the principal industry of the western part of the state.

Minerals. The mineral products consist of petroleum, natural gas, coal, asphalt, gypsum, granite and limestone, sand and gravel, and clay products. The only important metals are zinc and lead. Mineral waters are bottled at several springs.

Forests. The merchantable timber is mostly in that part of the state which formerly constituted Indian Territory. It consists largely of black walnut and other valuable hardwoods, in the bottom lands; of black-jack and post-oak, in the uplands; and of pine, on the higher elevations south of the Arkansas River.

Manufactures. The manufactures of Oklahoma have increased rapidly in their importance, although many of the industries are as yet in their infancy. A marked increase in the independent manufacturing activities of the state commenced with the development of the oil fields in 1907 and the discovery of natural gas. This cheap fuel has attracted manufacturers, who have established a number of new enterprises. An abundance of coal and lumber, and the location in the state of such minerals as gypsum, cement rock, asphalt, granite, limestone, lead, and zinc, have further stimulated manufacturing. The most important manufactures (arranged in the order of value of products) are: flour-mill and grist-mill products, cottonseed-oil and cake, lumber and timber products, and printing and publishing.

Education. The common school system is administered by the state superintendent of public instruction, a state board of education, county superintendents, and district boards. The state board is composed of the state superintendent, who is president of the board, the secretary of state, the attorney-general, and the governor. Each district board is composed of three members elected for a term of three years, one each year. Each district school must be open at least three months each year, and children between the ages of eight and sixteen are required to attend either a public or a private school unless excused because of mental or physical infirmity. There are separate schools for whites and negroes. In addition to the instruction in the ordinary branches, teaching in the district schools includes instruction in the elementary principles of agriculture, horticulture, animal husbandry, stock-feeding, forestry, building country roads, and domestic science. The higher institutions of learning established by the state are: the Oklahoma Agricultural and Mechanical College, at Stillwater; the Oklahoma School of Mines, at Wilburton; the Colored Agricultural and Normal University, at Langston; the Central Normal School, at Edmond; the Northwestern Normal School, at Alva; the Southwestern Normal School, at Weatherford; the Southwestern Normal School, at Durant; the East-Central Normal School, at Ada; the Northeastern Normal School, at Tahlequah; and the University of Oklahoma, at Norman.

Government. Oklahoma is governed under a constitution adopted in 1907, and its amendments. An elector must be able to read and write (unless he or an ancestor was a voter in 1866 or then lived in some foreign nation) and must be twenty-one years of age or over, a resident of the state for one year, of the county for six months, and of the election precinct for thirty days; women have the privilege of voting at school meetings. **EXECUTIVE.** The chief executive officers are the governor, lieutenant-governor, secretary of state, treasurer, auditor, examiner, inspector, commissioner of labor, commissioner of insurance, chief mine inspector, commissioner of charities and corrections, and president of the board of agriculture. All executive officers are elected for four years, but the governor, secretary of state, auditor, and treasurer are ineligible for the next succeeding term. The governor has limited appointing powers, and his appointments are subject to the confirmation of the Senate. His pardoning power is subject to the advice of the state board of pardons. His veto power extends to items in appropriation bills, but it may be overridden by a vote of two-thirds of the members elected to each house. **LEGISLATIVE.** The legislature is composed of a Senate and a House of Representatives. Members of the Senate are elected by districts for terms of four years, one half the number retiring every second year; members of the House of Representatives are elected by counties for two years. Sessions, beginning the first Tuesday after the first Monday in January, are held at Oklahoma City biennially, in odd number years. **JUDICIARY.** The state judiciary includes a supreme court of five judges, elected for terms of six years; a criminal court of appeals composed of three justices, appointed by the governor with the advice and consent of the Senate; twenty-one district courts each with one or more justices, elected for a term of four years; a county court in each county with one justice, elected for a term of two years; justice of the peace courts, members of which are elected for a term of two years, one in each of six districts in each county; and police courts in the cities. **LOCAL GOVERNMENT.** The general

management of county affairs is entrusted to three commissioners elected by districts. The other county officers are a treasurer, clerk, register of deeds, attorney, surveyor, sheriff, assessor, and superintendent of public instruction. The counties have been divided into municipal townships, each of which elects a trustee, a clerk, and a treasurer, who together constitute a board of directors for the management of township affairs. The trustee is also the assessor.

History. With the exception of the narrow strip comprising the counties of Beaver, Texas, and Cimarron, the territory included in the present state of Oklahoma was set apart by Congress, in 1834, under the name of Indian Territory, for the possession of certain Indian tribes. Oklahoma, the western part of Indian Territory, was ceded by the Indians to the United States in 1866. The treaties under which these lands were transferred to the United States stipulated that they were to be used by the government for the settlement of other Indian tribes or freedmen, but were not to be open to whites. It was not long before speculators and adventurers attempted to secure possession of it. Many parties of so-called "Boomers" entered the territory, and the military forces of the United States were required to eject them. In 1889 arrangements were concluded with certain Indian tribes by which, in consideration of the payment by the government of several million dollars, the clause forbidding settlement by white citizens on the land ceded by them in 1866 was cancelled, and it was thrown open for settlement at noon on April 22, 1889. In 1890, this portion of Indian Territory, together with the narrow strip north of Texas, became Oklahoma Territory. In 1893 Congress opened negotiations with the Indians which led to the passage of the Curtis Act in 1898. That act provided for individual allotment of land to the Indians of Indian Territory, and for a government administered from Washington. When the allotments were nearly all made, Congress, in 1906, authorized Oklahoma and Indian Territories to qualify for admission to the Union as one state, and the state was admitted to the Union on the 16th of November, 1907.

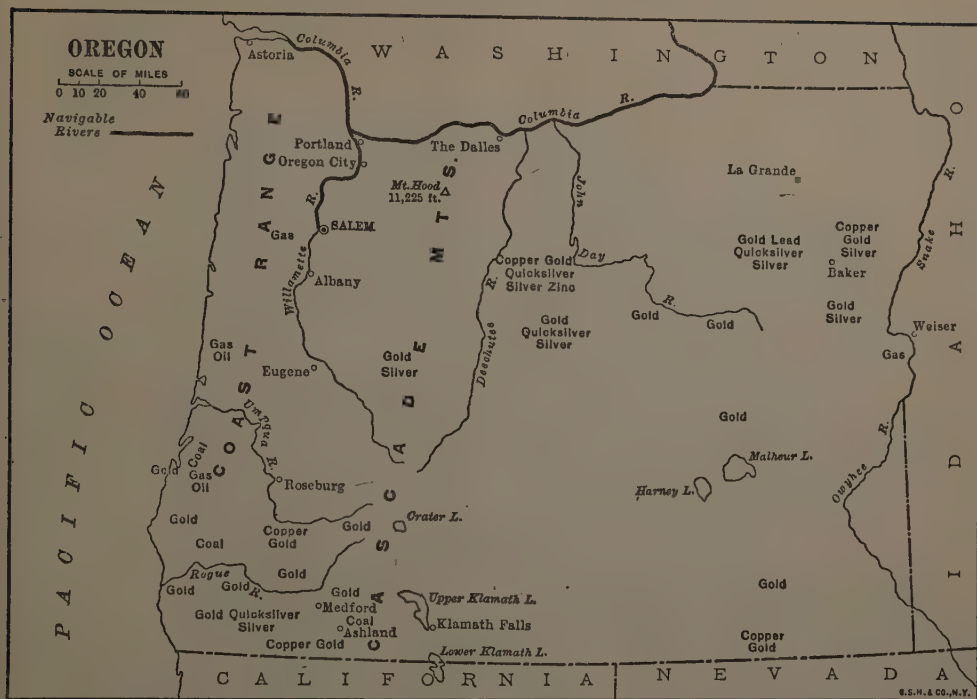
OREGON

OREGON, one of the Pacific States of the United States lies between latitudes 42° and 46° 18' N., and longitudes 116° 28' and 124° 30' W. It is bounded on the N. by Washington, on the E. by Idaho, on the S. by Nevada and California, and on the W. by the Pacific Ocean. It has an extreme length from east to west of 375 m., and an extreme width from north to south of 290 miles. In gross area it ranks ninth among the states of the Union (96,699 sq. m., of which 1,092 sq. m. represent water surface).

Coast. Oregon has about 300 m. of coast line, extending in a general north-south direction, and consisting of long stretches of sandy

beach broken occasionally by lateral spurs of the Coast Range, which project boldly into the sea and form high rocky headlands. With the exception of the mouth of the Columbia River, the bays and inlets which indent the shore are small and of very little importance.

Relief. About twenty miles inland runs an irregular chain of hills parallel with the coast, known as the Coast Range. It has a moderate elevation, but has numerous lateral spurs, especially toward the west. The general elevation of this range increases from north to south, and the range in some respects resembles a plateau. In the southern part of the state it merges with



the Klamath Mountains, lying partly in Oregon and partly in California. The Cascade Mountain Range, lying about one hundred miles inland, runs generally parallel with the coast and contains much higher peaks than the Coast Range, many of them being the cones of extinct volcanoes. Mt. Hood (11,225 ft.) is the highest point in the state. The Cascade Mountains divide the state topographically into two sharply contrasted parts. West of the range the country exhibits a great variety of surface structure, and is humid and densely wooded. East of the range it consists of a broken tableland, arid or semi-arid, with a general elevation of 5,000 feet. In the northeastern part of this eastern plateau lie the Blue Mountains, which have an average elevation of 6,000 ft. and decline gradually toward the north. South of these mountains lies the northern limit of the Great Basin Region. Many of the mountains within the Basin Region have a general north-south trend, and between them lie almost level valleys.

Drainage. The most important stream is the Columbia River, which forms the northern boundary for 300 m., and receives directly the waters of all the important rivers of the state, except a few of the southwest and a few of the extreme east. About 160 m. from its mouth are the Cascades, where the river cuts through the lava beds of the Cascade Mountains and makes a descent of about 300 ft. through a canyon 6 m. long and nearly 1 m. deep. The

passage of vessels through the river at this point is effected by means of locks. The largest tributary of the Columbia is the Snake River, which, for nearly 200 m. of its course, forms the boundary between Oregon and Idaho. It flows through steep, wild canyons from 2,000 to 5,000 ft. in depth. The principal tributaries of the Columbia east of the Cascade Mountains and lying wholly within the state are the John Day River, the Deschutes River, and the Willamette, the most important stream lying wholly within the state. In the western part of the state a number of short streams flow directly into the Pacific Ocean, the most important of these being the Rogue and the Umpqua Rivers. In southern Oregon, especially in the Great Basin Region, there are numerous lakes, of which the principal ones are Malheur and Harney Lakes, in Harney County. The waters of both these lakes are alkaline. East of Steins Mountains there is a chain of small lakes, and in Lake county are several larger bodies of water. The Upper and Lower Klamath Lakes of Klamath County are noted for their scenic beauty. Near the northwestern boundary of Klamath County is the famous Crater Lake (6,239 ft. above the sea). Though Crater Lake has no visible outlet, its waters are fresh.

Climate. Oregon has great local variations in climate. Along the coast it is humid, mild, and uniform. In the eastern two-thirds of the state, from which the moisture laden winds are ex-

cluded by the coast mountains, the climate is dry and marked by great daily and annual ranges of temperature. The mean annual temperature varies with the elevation and the distance from the sea. It is highest along the western slope of the Coast Range at altitudes below 2,000 ft., and lowest in the elevated regions east of the Cascade Mountains. In the valleys, between the Coast Range and the Cascade Mountains, the range of temperature is much greater than it is along the coast, and the southern portion of Oregon experiences greater extremes of temperature than the northern. At Astoria, near the mouth of the Columbia River, the mean annual temperature is 52° F., but at Silver Lake, in the Great Basin Region, it is only 44° F. With reference to rainfall, Oregon is divided into two distinct sections by the Cascade Mountains. West of the Cascades the annual precipitation ranges from 40 to 100 in., while east of these mountains irrigation is quite generally practised. During the winter the prevailing winds are from the south and bring moisture; during the summer they are from the northwest and are accompanied by cloudless skies and moderate temperatures.

Agriculture. Along the rugged coast line small valleys and elevated benches constitute excellent agricultural land. Between the Coast Ranges and the Cascade Mountains lies the broad interior valley traversed by the Willamette River, where the soils are mostly clay loams, greatly enriched in the river bottom lands by washings from the hills and by deposits of rich, black humus. The Cascade Mountains are too rough for agricultural occupations. The greater part of the agricultural development has thus far taken place in western Oregon. In eastern Oregon, the soils are deep, easily worked, and contain abundant plant food. Of the state's entire land area about one-fifth is in farms. The proportion of land area utilized for agriculture is greatest over the northern third of the state, where the country is less mountainous and the rainfall is heaviest. The leading crops of the state (in the order of their importance as judged by value) are: hay and forage, wheat, oats, hops, potatoes, and barley. Sheep and cattle are raised extensively on ranches in the semi-arid regions, large herds of cattle are kept on lands too wet for cultivation in the western counties, and stock-raising and dairying are important factors in the operation of many of the best farms. Fruit growing, especially the cultivation of apples, is an increasingly important industry in the region between the Cascade and Coast Ranges, and east of the Cascade Mountains. The soil and climate of the western valleys are favorable to hop growing, and the state ranks first in the Union in this industry.

Forests. The Federal government has thirteen forest reserves in the state, ten of which have an area of more than 1,000,000 acres each. From the coast to the eastern base of the Cascade Mountains, the state is heavily timbered,

the most important tree being the great Douglas fir. Timber is also found on the Blue Mountains in the northeast, and on a number of mountains in the central and southeastern parts of the state. East of the Cascades the valleys are usually treeless, save for a few willows and cottonwoods in the vicinity of streams.

Fisheries. Several hatcheries have been established by the state authorities of Oregon and Washington and by the Federal government for propagating the best varieties of fish. The Columbia River is famous for its salmon, and salmon are caught in small quantities in other coast streams. Catfish, shad, sturgeon, flounders, oysters, clams, crabs, and crawfish are among other varieties taken.

Minerals. The state has various mineral resources including gold, silver, copper, coal, granite and other building stones, quicksilver, nickel, cobalt, lead, and gypsum. Garnets and opals are found, also iron ore, platinum, and zinc.

Manufactures. The large arid area of southeastern Oregon is sparsely settled, lacks manufacturing interests of any importance, and is very deficient in transportation facilities. The waters of the numerous mountain streams of the state have been utilized to some extent for the development of power and for irrigation. Oregon is increasing in importance as a manufacturing state, but the growth of its manufacturing interests during the past sixty years has not kept pace with that of its population. The most important industries (arranged in the order of the value of products) are: lumber and timber products, flour-mill and grist-mill products, slaughtering and meat packing, printing and publishing, dairy products, and canning and preserving.

Education. School attendance is compulsory for the full school term for children from nine to fifteen years of age. The public school system is administered by the superintendent of public instruction, who exercises a general supervision over the schools, and by the state board of education, which prescribes the general rules and regulations for their management. There is a county educational board in every county having more than sixty school districts. Evening schools are provided in cities of the first class. Laws have been passed for the formation of union high schools. Each school district in the state is required to have a school term of six months or more. In addition to the public schools, the state maintains the University of Oregon, at Eugene; the State Agricultural College, at Corvallis; and the State Normal School, at Monmouth. Among the institutions not receiving state aid are Albany College (Presbyterian), at Albany; Columbia University (Roman Catholic), at Portland; Dallas College (United Evangelical), at Dallas; Pacific University (Congregational), at Forest Grove; McMinnville College (Baptist), at McMinnville; Pacific College (Friends), at Newberg; Philomath

College (United Brethren), at Philomath; and Willamette University (Methodist Episcopal), at Salem.

Government. The state is still governed under its original constitution adopted in 1857, and its subsequent amendments. The right of suffrage belongs to all citizens of the United States (including women) who have been residents of the state for six months, and of the voting precinct for two months previous to election. The same privilege is conferred upon aliens who have declared their intention of becoming citizens at least one year previous to the election. Excluded from the suffrage are idiots, insane persons, convicts, Chinese. **EXECUTIVE.** The executive functions of the state are vested in a governor who is elected for a term of four years, who must be at least thirty years old, and must have been a resident of the state for three years before his election. He has the right to pardon offences, and veto legislative acts, but his veto may be overridden by a two-thirds vote of the members present in each house of the legislature. The other important administrative officers are the secretary of state (who, as there is no lieutenant-governor, succeeds the governor if he dies or resigns), treasurer, attorney-general, superintendent of public instruction, and labor commissioner. **LEGISLATIVE.** The legislative assembly consists of a Senate and a House of Representatives. It meets at Salem biennially (odd number years), and sessions are limited to 40 days. **JUDICIARY.** The judicial department of the state consists of a supreme court, circuit courts, county courts, and the courts of local justices of the peace. The supreme court consists of five judges elected for a term of six years. The state is divided into nine circuits in which the judges are elected for a term of six years. Judges of the county courts are elected for four years; each county is divided into a number of districts or precincts, for each of which there is a justice of the peace,

elected biennially and having jurisdiction in minor cases. **LOCAL GOVERNMENT.** For the purpose of local government the state is divided into counties. The constitution provides that no county may have an area of less than 400 sq. miles. County affairs are administered by the county judge acting with two commissioners. Any portion of a county containing as many as one hundred and fifty inhabitants may be incorporated as a town or city, and as such it possesses complete self-government in all local matters, even having the power to revise its own charter.

History. In 1579, Francis Drake sailed along the Pacific coast of the United States as far as 43° N. latitude. He took possession of the country in the name of Queen Elizabeth, and called it New Albion. Between the date of Drake's voyage and 1774, the coast was visited by a number of Spanish explorers, the most successful of all being Juan Perez. Among others who sailed along the coast was Bruno Heceta, who landed off what is called Point Granville and took formal possession of the country, and later, in latitude 46° 9', discovered a bay whose swift currents indicated that he was in the mouth of a large river or strait. The Spaniards made no effort to colonize North America or to develop trade with the Indians. In 1778 the English Captain James Cook sighted the coast of Oregon in the latitude 44°, and explored it between 47° and 48° in the hope of finding the Straits of Juan de Fuca of Spanish accounts. The mouth of the Columbia River was discovered by the American Captain Gray in 1792. It was partly explored by Lewis and Clark in 1804-'05. A trading post was founded in Astoria in 1811. The territory between latitudes 42° and 54° 40' N. was long in dispute between Great Britain and the United States. The claims were finally settled by treaty in 1846. Oregon Territory was organized in 1848, and it was admitted to statehood in 1859.

PANAMA CANAL ZONE

PANAMA CANAL ZONE, a strip of territory, extending across the narrowest part of the Isthmus of Panama from ocean to ocean, of which the United States of America has a perpetual leasehold. The zone begins at a point three marine miles from mean low water mark in each ocean, and extends for five miles on each side of the center line of the route of the Panama Canal. It contains 436 sq. m., of which 95 sq. m. are under the waters of the Canal and Gatun and Miraflores Lakes. The ownership and jurisdiction of the United States extends to the area covered by Gatun Lake where that body of water penetrates beyond the five-mile limit. Included in the Panama Canal Zone are the

islands of Perico, Naos, Culebra, and Flamenco, and the United States also owns the Pearl Islands which lie some 60 m. southeast of the city of Panama.

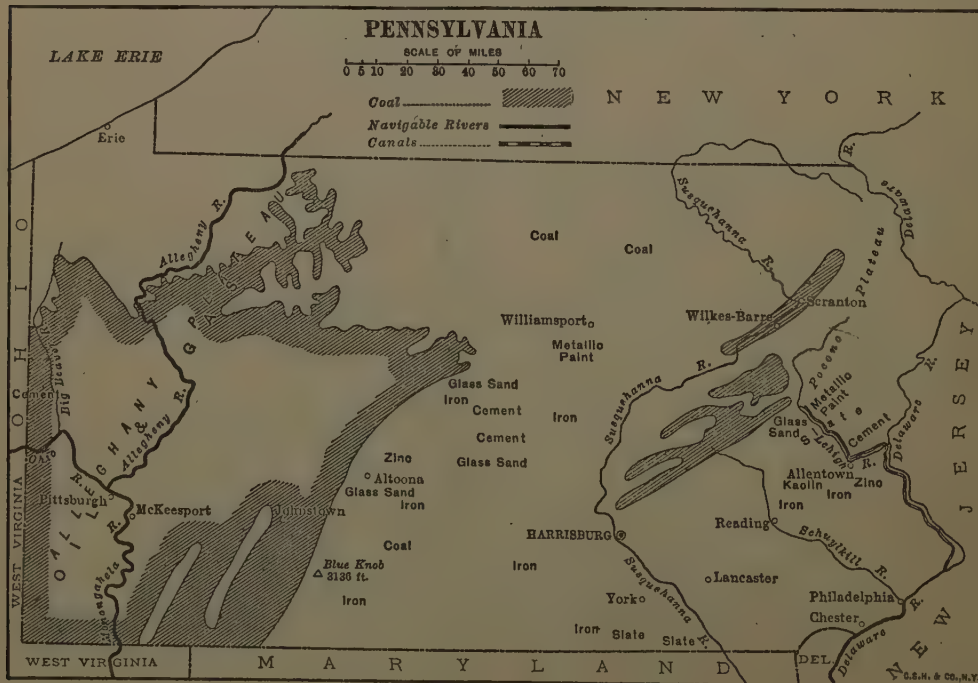
Government. The Panama Canal Zone is administered by a governor appointed by the President of the United States for a term of four years. The order which established the permanent government for the Zone created the following executive departments: Operation and Maintenance, Purchasing Department, Supply Department, Accounting Department, Health Department, and an Executive Secretary. The President appoints all officials; the nomination for the governor is alone by law subject to the advice and consent of the Senate.

PENNSYLVANIA

PENNSYLVANIA, one of the Middle Atlantic States and one of the original thirteen states of the American Union, lies between latitudes $39^{\circ} 43'$ and $42^{\circ} 15' N.$, and longitudes $74^{\circ} 40'$ and $80^{\circ} 34' W.$ It is bounded on the N. by Lake Erie and New York; on the E. by New Jersey; on the S. by Delaware, Maryland, and West Virginia; and on the W. by Ohio. Pennsylvania is called the Keystone State because it was the seventh or central one in order of the thirteen original states. It is nearly rectangular in shape; is about 303 m. long from east to west and 160 m. wide, and has an area of 45,126 sq. m., of which 294 sq. m. represents water surface. In size it ranks thirty-second among the states of the Union.

Relief. Pennsylvania has a remarkably varied surface. It skirts the Atlantic coastal plain in the extreme southeast; is crossed from northeast to southwest by the various ranges of the Appalachian Mountain system with their intervening valleys; and to the west is occupied by the Alleghany plateau, which, in the extreme northwest, falls to the plains bordering Lake Erie. In altitude it ranges from sea level in the southeastern portion, to 2,000-3,000 ft. in the mountain and plateau region, and sinks again to about 600 ft. above sea level along the Lake Erie shore. The state includes a portion of the northwestern extension of the Mississippi

Basin. The southeast section of the state is the Piedmont Region of Pennsylvania, an undulating plain which rises from the coast level to the foothills of the mountain belt. South Mountain, or Blue Ridge, is the most easterly of the Appalachian ranges. It extends southwestward from New Jersey to the southern boundary line, and beyond through the intervening states to Alabama. In its northeastern extension this range is represented by Schooley Mountain of New Jersey and the Highlands of the Hudson. The Blue Mountain (North or Kittatiny), corresponding to the Shawangunk Mountains of New York, extends from the Delaware Water Gap to the Maryland boundary. A number of depressions or gaps in this ridge are the channels through which pass the waters of the Delaware, Lehigh, Schuylkill, Swatara, and Susquehanna Rivers, and these breaks or gaps afford some of the wildest and most picturesque scenery of the state. The ridge nowhere attains an elevation of much over 2,200 ft., its best known summits being Mount Minsi (about 1,500 ft.) and Mount Tammany (over 1,450 ft.), the latter in New Jersey, between which flows the Delaware River through the beautiful Delaware Water Gap. In the northeastern part of the state is the Pocono Plateau Region. This, covering Wayne, Pike, and Monroe Counties and part of Carbon County, has a general level of 1,400-1,800 ft.



above the sea. The name Alleghany is frequently used collectively to include all the parallel ranges which lie west of the Blue Ridge. Each ridge, however, has its distinctive local name. These ridges are uniformly low and narrow and separated by narrow valleys. The most westerly ridge, or the main Alleghany, is the highest range in the state, with elevations of 2,000-3,000 feet. Beyond this ridge the surface slopes to the west and the region is known as the Alleghany Plateau, which extends southward from Central New York to northern Alabama, and westward into Ohio and Kentucky. It occupies fully half of Pennsylvania. Its elevation varies considerably, being about 500 ft. where it drops to the Erie plains along the Ohio border; 1,200-1,300 ft. in the southwestern section; and 2,400-2,500 ft. in Tioga and Potter Counties on the northern boundary. In the northern, middle, and southwestern portions of this plateau region the upland is cut by many narrow valleys and deep ravines.

Drainage. The Delaware and Susquehanna river-systems drain into Delaware and Chesapeake Bays the waters of fully half the area of Pennsylvania, including the northeastern portion of the Alleghany plateau, the Pocono highland, nearly all of the mountain belt, and the southeast provinces. The extreme southern portion of the mountain belt is drained by tributaries of the Potomac. The greater part of the Alleghany plateau is tributary through the Alleghany and Monongahela Rivers to the Ohio River, and belongs to the Mississippi Basin; but a small northern section is drained by the Genesee River into Lake Ontario. The plain about Lake Erie is drained by short streams into that lake. The lower portion of the Delaware is navigable as far as Philadelphia. The Susquehanna is wide and shallow, with numerous islands. The Alleghany and Monongahela, which unite at Pittsburgh and form the Ohio, are of great importance in the industrial and commercial life of western Pennsylvania. There are few lakes or ponds in the state except those small bodies of water found in the picturesque region of the Pocono Plateau.

Climate. Pennsylvania has the climate of the middle temperate regions and exhibits no marked extremes of heat or cold. The mean temperature of January at Philadelphia is 32° F., and that of July 76°, with occasional extremes in summer of 100° and more, and in winter of -6° F. In the mountain and plateau regions the winter temperatures are much more severe, and -20° is not unusual. The crests of the higher ridges are delightfully cool in summer, but the intervening valleys are subject to extreme heat in summer and severe cold in winter. The average rainfall is 44 in., and is fairly even in its distribution over the state. The prevailing winds are from the west, but they are frequently interrupted by warm, moist breezes from the south and east.

Agriculture. Nearly 65 per cent of the land

area of Pennsylvania is in farms, but less than 70 per cent of the farm land is improved. The total value of farm property is greater than ever before, though the acreage devoted to farming is slightly less than in former years. The soils of the state are extremely diverse in origin and physical characteristics, but that of the valleys and plains is generally fertile. In several crops the state has a high rank. Market-gardening, fruit growing, and forestry receive much attention, and the live stock and dairying industries are important. In the production of hay and forage Pennsylvania ranks second only to New York. Wheat, oats, maize, tobacco, rye, buckwheat, barley, and potatoes are the leading crops. Apples, cherries, and pears are the principal orchard fruits; grapes, peaches, plums, and apricots, and the leading berries are also extensively grown. Floriculture is an important industry in the southeastern part of the state. The sale of nursery products is exceeded in only four other states.

Forests. Pennsylvania has extensive lumber interests and furnishes large quantities of white pine, spruce, and hemlock. In the northeastern section there are considerable areas of beech forest. Oaks of several different species, the sugar and other maples, ash, elm, hickory, tulip-tree, black and white walnut, and many other useful trees abound.

Minerals. Pennsylvania is the most important coal producing state in the Union and one of the greatest coal bearing areas in the world. Anthracite coal is worked chiefly in Lackawanna, Carbon, Luzerne, Dauphin, and Schuylkill Counties, and to some extent in Northumberland and Columbia Counties. Semi-anthracite coal is mined in Sullivan and Wyoming Counties. Bedford, Bradford, Center, Clearfield, Fulton, Lycoming, and Tioga Counties contain fields of semibituminous coal. The great beds of bituminous coal are located in the Alleghany Plateau Region, every county west of the main Alleghany ridge, with the exception of Erie County, yielding more or less of this coal. The Pittsburgh district is especially productive, the coal in Allegheny and Washington Counties being valuable for its gas producing qualities, while Fayette and Westmoreland Counties yield the famous Connellsville coking coal. The Pennsylvania section of the Appalachian oil-field extends from the southwest corner of the state through Greene, Washington, Allegheny, Beaver, Butler, Venango, Clarion, Forest, Elk, Warren, McKean, and Tioga counties. The gas region in Pennsylvania embraces most of the Alleghany Plateau section, except a narrow belt along its east and southeast borders. Natural gas is extensively used as fuel and light, and has played an important part in the industrial development of the western part of the state. There are deposits of various kinds of iron ore in the eastern, southeastern, middle, and some of the western counties, and until the close of the 19th century Pennsylvania was one of the

chief iron ore producing states. Much of the ore used for the manufacture of pig iron is brought from the iron mines of Lake Superior to the bituminous coal field of the Pittsburgh district. Pennsylvania has large areas of limestone rock, used extensively for making cement, and building stone of several kinds, as well as valuable slate quarries. Clays, glass-sands, crystalline, graphite, feldspar, and soapstone are among the mineral products of the state. There are medicinal springs at Bedford, Doubling Gap, Ephrata, Yellow Springs, and at several other points in the state.

Manufactures. The state ranks second in the Union in the value of its manufactures, a rank which it has held since 1859. The establishment and growth of manufacturing industries are largely owing to the great and varied natural resources of the state. Of almost equal importance in the growth of manufactures have been the excellent transportation facilities of the state by rail and canal, the fact that the state has a port on the Atlantic seaboard, and a frontage on Lake Erie which makes the ores of the Lake Superior region readily and cheaply accessible. By far the most important industry is the production of iron and steel, in which Pennsylvania has held first rank since the establishment of the Union. The twelve leading manufactures, aside from the iron and steel products, are (in the order of value) leather, woolen goods, railway cars and repairs by steam railway companies, printing and publishing, silk and silk goods, lumber and timber products, petroleum refining, slaughtering and meat packing, coke, tobacco manufactures, hosiery and knit goods, and malt liquors.

Education. The public school system of Pennsylvania of the present time classifies districts by population, each class having uniform laws. There is a state board of education, with limited powers, and the state superintendent of public instruction is in control. The state school fund and its income are managed by the board of education. The state is gradually taking over the thirteen normal schools, which were formerly local or stock company schools. Provision is made for industrial education and for a medical inspection of pupils. School attendance is compulsory between the ages of eight and sixteen years. The state furnishes text books and other supplies free of charge. Schools must be kept open not less than seven and not more than ten months in the year. There are many private and sectarian schools and academies. Among the technical and special schools are Girard College, Drexel Institute and Franklin Institute at Philadelphia; the Carnegie Institute at Pittsburgh; and the United States Indian School at Carlisle. Among the institutions for higher education are the University of Pennsylvania (1749), at Philadelphia; the University of Pittsburgh (1819), at Pittsburgh; Dickinson College (Methodist Episcopal, 1783), at Carlisle; Haverford College (Society of Friends, 1833), at Haver-

ford; Franklin and Marshall College (German Reformed, 1853), at Lancaster; Washington and Jefferson (Presbyterian, 1802), at Washington; Lafayette (Presbyterian, 1832), at Easton; Bucknell University (Baptist, 1846), at Lewisburg; Alleghany College (Methodist Episcopal, 1815), at Meadville; Lehigh University (non-sectarian, 1867), at Bethlehem; Bryn Mawr College for women (Society of Friends, 1885), at Bryn Mawr; and many others.

Government. Pennsylvania is governed under the constitution of December, 1873, and its amendments. All male citizens over twenty-one years of age, who have been citizens of the United States for one month or longer, residents of the state for one year, and of the election district for two months immediately preceding the election, have the right of suffrage, with the proviso that they must have paid within two years a state or county tax, which shall have been assessed at least two months and paid at least one month before the election. **EXECUTIVE.** The executive officers of the state are the governor, the lieutenant-governor, and the secretary of internal affairs, all elected for four years; the auditor-general, elected for three years; the treasurer, elected for two years; and (all appointed by the governor subject to the advice, and consent of two-thirds of the Senate) the secretary of the commonwealth, the attorney-general, and a superintendent of public instruction. The executive officers chosen by election are ineligible for a second consecutive term, except the secretary of internal affairs. The governor and lieutenant-governor must be at least thirty years of age, citizens of the United States, and inhabitants of the state for seven years immediately preceding election; no member of Congress or person holding any office under the governments of the United States or of Pennsylvania is eligible for either office. The governor controls a large amount of patronage and has wide appointive power, subject to the approval of the Senate. His right of veto, which extends to items in appropriation bills, may be overridden by a two-thirds vote in each house. The power to pardon is subject to recommendation by a state board of pardons. The department of internal affairs consists of six bureaus: the land office, vital statistics, weather service, assessments, industrial statistics, and railroads, canals, telegraphs, and telephones. There are also included in the executive department many statutory administrative officials and boards, such as the adjutant-general, insurance commissioner, board of health, board of public grounds and buildings, board of agriculture, commissioner of fisheries, and inspector of factories and mines. **LEGISLATIVE.** The legislative body of Pennsylvania, known as the General Assembly, consists of two houses—a Senate and a House of Representatives. The Legislature meets at Harrisburg biennially (odd number years), the session being unlimited as to time. The powers of the two houses are the same, ex-

cept that the Senate exercises the right of confirming appointments and of acting as a court of impeachment, while the House of Representatives initiates all money bills and impeachment cases. Senators must be at least twenty-five years old, citizens, inhabitants of the state at least four years next before election, and inhabitants of the senatorial districts from which they are elected for one year next before election. Representatives must be at least twenty-one years of age, must have lived in the state three years, and in the district from which elected one year next before election. To avoid the undue power of large cities provision is made that no city or county shall be entitled to more than one-sixth of the total number of senators.

JUDICIARY. At the head of the state judiciary is the supreme court, consisting of seven judges elected by the state at large. Minority representation is secured by the provision that each elector shall vote for one less than the number of judges to be chosen at each election. The state is divided into three supreme judicial districts, the eastern, the middle, and the western. Besides the supreme court there are the superior court, with appellate jurisdiction; fifty-six district courts of common pleas; courts of oyer and terminer; courts of justices of the peace; and orphans' courts.

LOCAL GOVERNMENT. For local administration the state is organized in counties, cities, towns or boroughs, and townships. The county officers are the sheriff, coroner, prothonotary, register of wills, recorder of deeds, commissioners, treasurer, surveyor, auditor or comptroller, clerk of the courts, and district attorney, all elected for three years.

History. The earliest European settlements

(1643-'81) within the present limits of Pennsylvania were made by Swedish and Dutch traders in the lower valley of the Delaware River. In 1664 the English obtained possession of the territory, and in 1681 it was granted by Charles the Second to William Penn, a prominent member of the Society of Friends. In colonial days Quaker influence was very strong, but religious freedom was given to all. The colony had serious boundary disputes with Maryland, Virginia, and New York, and a dispute with Connecticut over the Wyoming Valley, which was settled in favor of Pennsylvania in 1782. A strong anti-proprietary sentiment grew among the people after the death of William Penn, the great leaders of the movement being Joseph Galloway and Benjamin Franklin. The people of the colony were not united in sentiment over the War of Independence. There were not only many loyalists, and many who were opposed to war on religious grounds, but the people generally were satisfied with the liberal and free government which they already enjoyed. The liberty party, however, became dominant, and Pennsylvania bore a creditable part in the struggle which ended in the establishment of independence. Philadelphia, where the Declaration of Independence was adopted in 1776, became the seat of the Federal Government, except for a brief period in 1789-'90, until the removal to Washington in 1800. The state bore a notable part in the Civil War. Many of the miners and ironworkers are of foreign birth, and serious industrial disturbances have occurred at intervals since 1865. A large proportion of the farmers are of German descent, and still speak the *patois* known as "Pennsylvania Dutch."

PHILIPPINE ISLANDS

PHILIPPINE ISLANDS, a large insular group forming the northern section of the Malay Archipelago, from which it is separated by the two profound abysses of the Sulu (Jolo) and Celebes Seas, 2,000-4,000 fathoms deep. The group lies between latitudes 4° 40' and 21° N., and longitudes 117° and 127° E., and comprises a vast aggregate of over 2,000 islands of all sizes, ranging from mere rocks and reefs to Luzon and Mindanao, the former rather more and the latter somewhat less than 40,000 sq. m. in area. The other chief members of the group are Samar (5,031 sq. m.), Negros (4,881 sq. m.), Panay (4,611 sq. m.), Palawan or Paragua (4,027 sq. m.), Mindoro (4,108 sq. m.), Leyte (2,722 sq. m.), Cebu (1,762 sq. m.), Bohol (1,441 sq. m.), and Masbate (1,236 sq. m.). There are twenty other islands, ranging from 100 to 600 sq. m. in area, and nearly 2,000 which contain less than one square mile each.

Relief. The group is washed on the eastern side by the Pacific Ocean, and on the north-western by the China Sea. It has a total area of 115,028 sq. miles. The archipelago is disposed nearly due north and south, and has very irregu-

lar coastlines aggregating over 12,000 m. in length. The islands are essentially mountainous and volcanic, and are traversed by irregular chains of mountains whose trend is generally north and south. The chief mountain system is that bearing the name of the Caraballos Mountains, in Luzon. It is divided into three branches—the West Caraballo, the Central Caraballo, and the Sierra Madre—the last named with a southerly extension known as the Caraballo del Sur. These mountains have an average elevation of about 3,500 ft., and rise in numerous crests and summits to 5,000 and 7,000 ft., the highest point in Luzon being Mt. Data (7,364 ft.). Southward of Lingayén Gulf and extending to Manila Bay are the Zambales Mountains, which follow the western coast of the island. East of this range lies the great valley or depression, about 150 m. long and from 50 to 60 m. wide, which is traversed in great part by the Pampanga River. In this fertile tract are located two-fifths of the population of the island. In Mindanao are several ranges, and every island has ridges and chains of greater or lesser magnitude, the loftiest and most prominent mountain



Climate. The climate presents many gradations from tropical to almost temperate, and it is difficult to make a general statement which will not be subject to innumerable well-grounded objections. As in other tropical countries, altitude plays an important part in the determination of climate, but there are regions at sea level where the trade winds are not arrested by the mountains, and where the climate is pleasant, and uniform as to precipitation. This climate is typical of Mindanao Island and southern Luzon. At Manila, the mean annual temperature is 80° F., one of the lowest recorded temperatures being 60° F., while the highest recorded temperature of the city for twenty-two years was 100.04° F. Those who are accustomed to the Manila climate, claim that it is as endurable during the hot season as is the climate of Chicago or New York during midsummer. As a whole, the marked characteristics of the Philippine climate are a uniformly high temperature, ex-

Religion. The dominant religion of the islands is the Roman Catholic, there being, in addition to an American archbishop, five American, one Italian, and two Filipino bishops, and one Spanish apostolic prefect. In Luzon an

Independent Filipino Church has come into existence. The Moros are Mohammedans, and there are pagan tribes in some of the more remote regions.

Government. The whole of the archipelago is under civil government. The central government is composed of the governor-general, who is the chief executive and president of the Philippine Commission, and a board of eight commissioners composed of three Americans and five Filipinos. The legislative body of the archipelago comprises an upper and a lower house; the Philippine Commission constitutes the upper house, while the lower house, or Philippine Assembly, is elected. Members of the assembly hold office for four years, and the legislature elects two resident commissioners to the United States, who hold office for the same term. These commissioners represent the islands in the United States House of Representatives. They have the right to speak but not the right to vote. There are four executive departments—Interior, Finance and Justice, Commerce and Appeals, and Public Instruction. **LOCAL GOV-**

ERNMENT. The islands are divided into thirty-six provinces, each of which has a governor, secretary, treasurer, and prosecuting-attorney. The government of the towns is practically autonomous, the officials being elected by the qualified voters of the municipalities and serving for four years. **JUDICIARY.** For the administration of justice there are a supreme court with seven judges; twenty-six judicial districts, each with a court of first instance, three additional judges of the court of first instance of Manila, and seven additional judges of first instance who replace absent judges or those disqualified for any reason in particular cases. The court of land registration has been merged with the courts of first instance.

History. The Philippines were discovered by Magellan in 1521 and were officially annexed to Spain in 1569, remaining an integral part of the Spanish dominion till 1898. A rebellion in 1896 went on until the Spanish-American War was begun in 1898. As a result of the war, the islands were ceded to the United States on a payment of \$20,000,000.

PORTO RICO

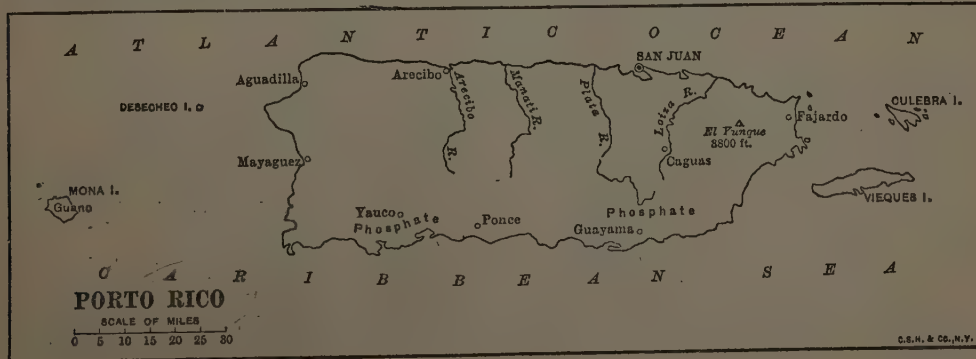
PORTO RICO (or Puerto Rico), an island Territory of the United States, lying in the Atlantic Ocean seventy-five miles east of Haiti, or Santo Domingo. It is the most easterly and the smallest of the Greater Antilles and is intersected near its center by the parallel of 18° N. and the Meridian of $66^{\circ} 30'$ W. It is about 100 m. long from east to west, from 35 to 40 m. from north to south, and has an area of 3,435 sq. miles. Included in the administration of Porto Rico are the island of Vieques, about 21 m. long and 5 or 6 m. wide, and the nearly barren island of Culebra off the east coast; the island of Mona, valuable for its guano deposits, off the west coast; and a number of islets.

Coast. The coast line has many shallow bays and lagoons which are available for light draft vessels, but there are few indentations of sufficient depth and size to afford good anchorage for large vessels. The principal harbors are those of San Juan and Ponce.

Relief. Porto Rico is traversed from east to west by a range of mountains varying in height from 2,000 to 3,700 feet. The northern slope of this range is gradual, but it is much broken by rugged spurs and gorges. The southern slope is shorter and much more abrupt. The culminating point, El Yunque, about 3,800 ft. in height, is in the northeastern corner of the island. There is little level country, except on the south side of the island.

Drainage. More than 1,200 streams afford Porto Rico complete and efficient drainage. The main water parting is nearly twice as far from the north coast as it is from the south coast of the island and all the principal rivers are on the north side. Among many others, they include the Rio Loiza, Rio de la Plata, Rio Manati, and Rio Arecibo. None of the rivers is navigable for more than a mile or two from the coast.

Climate. The island lies in the track of the NE. trade winds which, blowing throughout



the greater part of the year, greatly moderate the temperature. The mercury rarely reaches 100° F., or falls below 50° F., and the mean annual temperature is about 80° F. The average annual rainfall on the northeast coast is about 120 inches or more, and at San Juan it is 55 inches, while other districts are semiarid or subject to severe droughts. The island is visited occasionally by hurricanes.

Agriculture. The soil is generally fertile, and a little more than one-fourth of the land is under cultivation. Agriculture forms the principal industry of the people. The three leading crops (in the order of their importance as judged by value) are sugar, tobacco, and coffee. The others are rice, maize, yams and garden vegetables, bananas, plantains, and tropical fruits. Sea-island cotton and other textile fibers are grown. The guano and phosphate deposits are valuable.

Forests. The more rugged districts and higher elevations are covered with such tropical forest trees as ebony, sandalwood, and mahogany. There are several species of palm, tree-ferns, resinous trees, and many medicinal and other plants.

Minerals. The minerals resources are very limited. Iron ore, lignite, copper, nickel, platinum, and other minerals have been found, but not in sufficient quantity to be of commercial value. There are very productive salt works.

Manufactures. The manufacture of sugar and molasses, the making of cigars and cigarettes, and the cleaning and polishing of coffee are the most important industries of Porto Rico.

Education. There is a complete and efficient system of common schools, and education has been compulsory since 1899. There is a well distributed system of night schools and kindergartens, and there are also a number of private schools. The University of Porto Rico, in Rio Piedras, is open to both men and women. It comprises a normal department, a college of liberal arts, a college of agriculture, with provision for departments of natural science and engineering, architecture, law, medicine, pharmacy, and a university hospital. It maintains a farm and a dairy equipped with modern utensils and machinery, and with selected stock. With the co-operation of the United States Agricultural

Experiment Station at Mayaguez, it offers a thorough course in theoretical and practical husbandry.

Inhabitants. The white population of the island is largely of Spanish extraction, but many Americans from the United States are living in Porto Rico and are engaged in business. The colored population is negro and mulatto, the latter being in the majority. Nearly all the people are Roman Catholics.

Government. Under the constitution of 1900, with its amendments, Porto Rico has representative government, the franchise being restricted only as to age (21 years), residence (1 year), and citizenship (either Porto Rican or American). **Executive.** The governor and the executive council are appointed by the President of the United States for terms of four years. The council consists of six heads of departments and five natives, and forms the upper house of the legislative body of the island. **Legislative.** Members of the House of Delegates are elected by the people for a term of two years. Acts of the legislature may be vetoed by the governor. A resident commissioner to the United States, having a seat in Congress in Washington, is elected by the people for two years. The regulations of the United States Civil Service have been incorporated into the law of the island by the legislative assembly, which meets annually at San Juan, its sessions being limited to sixty days. **Judiciary.** The judiciary comprises an attorney-general and staff, and a United States court, appointed by the President; a supreme court of five members, also appointed by the President; seven district judges, appointed by the governor; thirty-four municipal courts, the judges and officials of which are elected by the people; and fifty-nine justices of the peace, appointed by the governor. **Local Government.** For purposes of local government, the island is divided into municipalities, in which the mayor, city council, and other officials are elected by the people.

History. Porto Rico was discovered by Columbus in 1493, and Ponce de Leon founded a settlement there in 1510. The island was ceded by Spain to the United States after the war of 1898, and in 1900 civil government was given to the Territory.

RHODE ISLAND

RHODE ISLAND, one of the New England group of states, and one of the original thirteen states of the Union, lies between latitudes 41° 18' and 42° 3' N., and longitudes 71° 8' and 71° 53' W. It is bounded on the N. and E. by Massachusetts; on the S. by the Atlantic Ocean; and on the W. by Connecticut. Rhode Island is the smallest state in the Union, being a little less than 50 m. in length from north to south, and about 37 m. in width from east to west, and having an area of 1,248 sq. m. of which 181 sq. m. are water surface.

Relief. The surface of Rhode Island is nowhere mountainous, but is generally hilly and stony in the northern section, and slopes gradually towards a level region in the south. The mean elevation for the entire state is only about 200 ft. above sea level, and Durfee Hill (805 ft.) in the northwest is the highest point.

Drainage. The rivers of Rhode Island are short and of no great volume, but they are swift, and furnish water-power which is extensively utilized. Chief among the streams are the Blackstone and the Pawtuxet, both of which flow into

the Providence River. The Blackstone has a fall of 50 ft. at Pawtucket, and the Pawtuxet has a number of falls. The Pawcatuck River is the principal stream of the western half of the state. The most important physiographic feature of Rhode Island is Narragansett Bay, which penetrates the state for about 28 m. and encloses a number of beautiful islands. Large vessels can ascend this bay from the sea to Providence. Providence Bay, or River, is the northern arm of Narragansett Bay; Mount Hope Bay, the estuary of the Taunton River, is an eastern arm; and the Sakonnet River, between Aquidneck, or Rhode Island, and the mainland, is a southern arm. Aquidneck or Rhode Island, which gave the state its name, Conanicut Island, and Prudence Island, are the largest of the Bay islands. Block Island, about 10 m. off the coast, belongs to the state and forms a part of Newport county. West of Point Judith the coast of Rhode Island is low and sandy.

Climate. Rhode Island has a milder and more equable climate than that of the other New England States. Extremes of either heat or cold are rare. The mean annual temperature is 49°, the summer mean being 68° and that of the winter 29° F. The annual rainfall varies from 40 to 50 in.

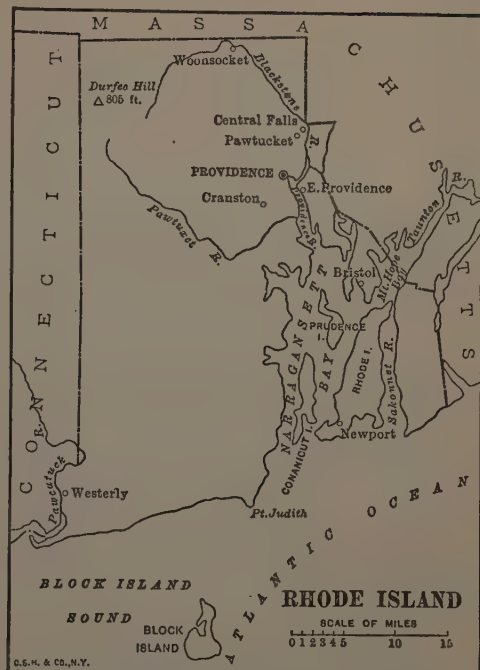
Agriculture. While the number of farms and the average number of acres per farm have decreased since 1850, the average value of all farm property has greatly increased. Owing to the proximity of great manufacturing centers, trucking is replacing general farming wherever the soils are sufficiently retentive of moisture to permit it. The principal crops (in the order of their value) are: cereals, hay and forage, garden vegetables, and fruits and nuts.

Fisheries. In former days Rhode Island was a center of the whale-fishing activity, but before the close of the 19th century the industry was practically extinct. The general fisheries of the present time are, however, important, the chief items of catch being lobsters, squeteague (weakfish), scup, and oysters.

Minerals. Rhode Island's mineral wealth is comparatively small, the most valuable item being granite, which constitutes more than half the value of the total mineral products of the state. Clay products, lime, and talc are the only other minerals of commercial note.

Manufactures. Rhode Island is preëminently a manufacturing community, and the growth and concentration of population in the state have been closely related to the increase in the importance of its manufacturing industries. There is great diversity in those industries, but the most important are the manufacture of cotton and woolen textiles and goods, jewelry, foundry and machine-shop products, electrical machinery and supplies, silverware and plated ware.

Education. School attendance is compulsory for children between the ages of seven and fifteen, but the maximum limit is reduced to



thirteen for children who are employed at lawful labor. At the head of the public school system is a commissioner of education, appointed by the governor and Senate, and a state board of education, composed of the governor and lieutenant-governor *ex officio*, and six other members elected by the General Assembly. In addition to the public schools are the parochial schools of The Roman Catholic Church. The principal institutions for higher education are: Brown University, the State School of Design, the State Normal School, and the Moses Brown School, all at Providence; and the State College of Agriculture and Mechanic Arts, at Kingston. There are state training schools for teachers at Providence, Cranston, Bristol, Barrington, Central Falls, Warwick, and Pawtucket.

Government. Rhode Island is governed under a constitution adopted in 1842, and amended at various times. Amendments to the constitution must be passed by both houses of the General Assembly at two consecutive sessions, and must then be ratified by three-fifths of the electors of the state voting thereon in town and ward meetings. All native or naturalized citizens of the United States residing in Rhode Island are citizens of the state. In state and national elections all adult male citizens are entitled to the suffrage. **LEGISLATIVE.** The legislative power of the state is vested in the General Assembly, members of which are elected annually. It meets annually at Providence, sessions being limited to 60 days. It

consists of a Senate made up of the lieutenant-governor and of one senator from each of the thirty-eight cities and townships in the state; and a House of Representatives of one hundred members, apportioned according to population, but with the proviso that each town or city shall have at least one member and that none shall have more than one-fourth of the total number.

EXECUTIVE. The executive officers of the state as well as members of the General Assembly are elected annually in November. They include a governor, a lieutenant-governor, a secretary of state, an attorney-general, an auditor, a treasurer, a commissioner of public schools, a railroad commissioner, a factory inspector, and various boards and commissions. **JUDICIARY.** At the head of the judicial branch of state government is the supreme court, divided into an appellate division and a common pleas division, with final revisory and appellate jurisdiction upon all questions of law and equity. Below the supreme court are the twelve district courts, the town councils, probate courts, and justices of the peace. The judges of the supreme court and the district judges are elected by the General Assembly, the former to serve during good behavior, the latter for terms of three years. **LOCAL GOVERNMENT.** For purposes of local

government the state is divided into five counties and thirty-eight towns. The town (or township) is the unit of local government, the county being recognized only for judicial purposes, and to some extent in the appointment by central administrative boards.

History. Rhode Island was founded by religious and political exiles from Massachusetts. Roger Williams planted the first settlement at Providence in 1636. William Coddington and others settled on Aquidneck or Rhode Island in 1638. Newport was founded in 1639. The Royal Charter for Rhode Island and Providence Plantations was issued in 1663. The government of Rhode Island permitted complete freedom in religious matters. Rhode Island did not ratify the federal constitution until 1790, it being the last of the original thirteen states to accept it. The first successful cotton-mill in the country was established at Pawtucket in 1790. In 1842 occurred the Dorr Rebellion, a revolt against conditions which were the outgrowth of the charter of 1663, which had served in place of a constitution, and which gave undue power to country towns and restricted suffrage. As a result of this revolt a new constitution was adopted. There were two centers of government until 1900.

SAMOAN ISLANDS

SAMOAN ISLANDS (the Tutuila Group), the Island of Tutuila, and all other islands of the Samoan Group lying east of longitude 171° W. belong to the United States. The Island of Tutuila, 70 m. from Apia, has an area of about 77 sq. miles. Manua and the other islets have a united area of about 25 sq. miles.

Relief. The Island of Tutuila is mountainous, luxuriantly wooded, and fertile, and has in Pago Pago the only good harbor in Samoa. It has a United States naval station under a commandant, the government having acquired there a land area of about 40 acres. All the islands are mountainous, with volcanic peaks rising from 2,000 to 4,000 ft. above the sea. The cones are generally quiescent, but volcanic disturbances have occurred in quite recent times. The islands are abundantly watered and the coasts are protected in many places by coral reefs.

Climate. The climate is moist and sometimes extremely hot, though generally pleasing and healthful. A fine dry season extends from April to September; a wet season from October to March. The mean annual temperature is about 78° F., the warmest month being December, and the coldest July. Violent and destructive hurricanes sometimes occur from January to March.

Products and Industries. The soil is wonderfully fertile, the chief products being copra, taro, yams, breadfruit, coconuts, and bananas. The forests are remarkable for the size and

variety of their trees and the luxuriance and beauty of the tree-ferns, creepers, and parasites.

Commerce. The chief articles of export are copra and cocoa-beans. The imports are cereals, clothing, hardware, agricultural tools and implements, drugs and chemicals, and oils.

Inhabitants. The Samoans are pure Polynesians. They are of a light brown color, have regular and handsome features, and fine physique. Under missionary influence they have become Protestants, Catholics, or Mormons, but retain many superstitions connected with their religion. Besides the sectarian schools, there are three non-sectarian schools, one maintained by the island governor, and two mainly supported by the natives. All the non-sectarian schools are supplied by the government with text-books, stationary, etc.

Government. All of the islands belonging to the United States are under a governor, who is also the commandant of the United States Naval Station of Tutuila. He holds his commission from the President and appoints officers and frames laws and ordinances; but native customs, unless inconsistent with the United States laws, are not changed without the consent of the people. The islands are organized in three political districts, in each of which there is a native governor, under whom are native high chiefs in the minor divisions called counties. These, in turn, have control of the village chiefs. Judicial power is vested in village courts, dis-

strict courts, and in a high court. Pago Pago (Pango Pango) is the seat of government.

History. The islands were visited by Bougainville in 1768, and from him they received the name of Îles des Navigateurs. After 1889 Great Britain, Germany and the United States recognized the independence of the Samoan

government, making provision for a supreme court and the regulation of taxation and land-claims. By a further agreement between Great Britain, Germany and the United States (1899-1900), Upolu and Savaii were assigned absolutely to Germany, and the other islands to the United States.

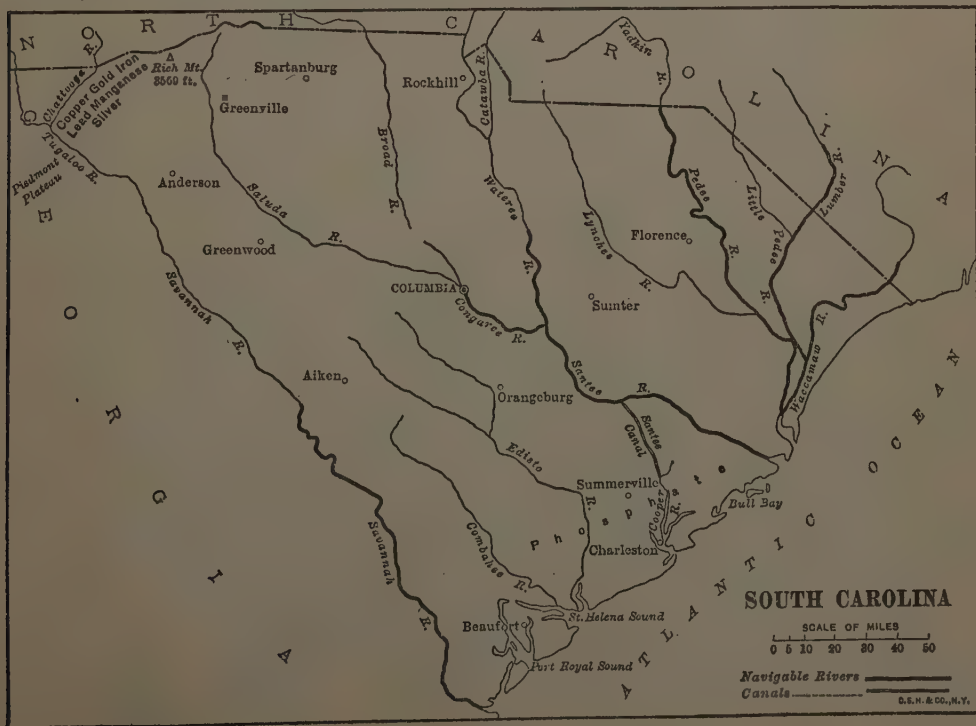
SOUTH CAROLINA

SOUTH CAROLINA, a South Atlantic State and one of the thirteen original members of the American Union, lies between latitudes $32^{\circ} 2'$ and $35^{\circ} 17' N.$, and longitudes $78^{\circ} 30'$ and $83^{\circ} 20' W.$ It is bounded on the N. by North Carolina; on the E. by North Carolina and the Atlantic Ocean; on the SE. by the Atlantic Ocean; and on the W. by Georgia, from which it is separated by the Savannah, Tugaloo and Chattooga Rivers. In size, South Carolina ranks thirty-ninth among the states of the Union, its gross area being 30,989 sq. m., of which 494 sq. m. are water surface.

The Coast. The coast-line from Little River Inlet extends in a SW. course to the Savannah River, a distance of about 200 m. The principal indentations are Wingah Bay, Bull Bay, Charleston Harbor, Stono Inlet, Edisto Inlet, St. Helena Sound and Port Royal Sound, but the only first-class harbors are those of Charleston and Port Royal. Much of the coast line is bordered

by a series of flat, low, sea-islands that increase toward the Georgia border.

Relief. South Carolina lies mainly in the Coastal Plain and Piedmont sections of SE. United States, but in the NW. it extends slightly into the Appalachian Mountain Region. It is roughly triangular in outline, with its apex pointing south. Fully three-fifths of the surface of the state is included within the Coastal Plain, which along its eastern border is occupied by a broad strip of the "flatwoods" country. For ten or twelve miles back from the coast, the region is occupied very largely by sand marshes, and beyond these the surface, while continuing flat, rises about two feet per mile for from 40 to 45 m.; farther inland it rises more rapidly, becomes more rolling, and attains elevations of 300-350 ft. along the "fall-line," which marks the boundary between the Coastal Plain and the Piedmont section. The "fall-line" passes in a general SW. direction from the North Carolina



border in Marlboro County, through Columbia, to Augusta on the SW. boundary. The Piedmont Plateau Region rises gradually from the "fall-line" to elevations of 1,000 ft. and more in the NW. Locally it is spoken of as the "up-country." Its surface is much broken by undulating ridges and deeply cut valleys. In the Appalachian Mountain region, occupying a very small part of the state, a few summits of the Blue Ridge rise abruptly from the foot-hills to peaks attaining from 3,000 to nearly 4,000 ft. in height. The highest point in the state is Rich Mountain (3,569 ft.) on the North Carolina state line. Other summits are Mt. Pinnacle (3,413 ft.), Cæsar's Head (3,218 ft.) and Table Rock (3,157 ft.). The mean elevation of the entire state is 350 feet.

Drainage. The principal rivers rise in the Appalachian Mountains and flow SE. into the Atlantic Ocean. Along the "fall-line" these rivers drop from the higher areas of the Piedmont Plateau to lower levels in the Coastal Plain Region. Through the center of the state flows the Santee River, its basin occupying nearly one-half the area of the state. The Santee is formed by the confluence of the Wateree (the Catawba River in North Carolina) and the Congaree, which in turn is formed by the Broad and Saluda Rivers. In the NE. the Great Pedee and its tributaries are wholly within the Coastal Plain, but beyond the "fall-line" the main stream is known as the Yadkin, which rises in the mountains of North Carolina. On the Georgia border, the Chattooga River, rising in the Blue Ridge, is a tributary to the Tugaloo, and this in turn becomes tributary to the Savannah. The Black River, north of the Santee, and the Combahee and the Edisto Rivers in the SE. are the principal streams rising within the Coastal Plain that flow direct to the ocean. In the Piedmont Plateau Region the rivers are generally swift, and are frequently interrupted by falls or rapids; but in the Coastal Plain Region they become sluggish, and in times of flood large areas of the country are inundated.

Climate. Along the coast the climate is mild and equable, the mean annual temperature being about 66° F. For the whole state the mean annual temperature is about 63°. The mean annual rainfall is nearly 50 in., well distributed throughout the state. Snow is rare in the southeastern part of the state and soon disappears, but in the central and northwestern sections it occasionally covers the ground to a depth of several inches. The prevailing winds along the coast are from the SW., from the NE. in the north-central section, and from the W. in the west section. The mountain region has a delightful summer climate and is much visited by tourists.

Agriculture. Of the state's entire land area, over two-thirds (69.2 per cent) is in farms. As in other South Atlantic states, the total reported farm acreage, has decreased slightly, but the number of farms has increased since 1860. The

state long outranked all other states in the growing of rice, but this industry has declined, and South Carolina is now surpassed by two or three other states. The general character of South Carolina agriculture is indicated by the fact that about two-thirds of the total value of crops is contributed by cotton, and more than one-sixth by cereals, the remainder consists mostly of potatoes and other vegetables, forest products, and hay and forage. The leading crops (in the order of their importance as judged by value) are: cotton, corn, cottonseed, oats, hay and forage, sweet potatoes and yams, and tobacco.

Forests. The principal lumber product of South Carolina is yellow pine, and there is also a small quantity of cypress. Some use is made of the forest resources of the state in the manufacture of veneer, paper-pulp, turpentine and other chemicals.

Fisheries. The state has active fisheries, mainly oyster, whiting, shad, and sea-bass.

Minerals. The most valuable mineral of South Carolina is phosphate rock, which is found chiefly in Berkeley, Dorchester, Charleston, Colleton and Beaufort Counties. Mineral waters are exported to some extent; other minerals are: granite, clay products, gold (in very small quantities), silver, manganese, iron ore, lime, and monazite (in small quantities).

Manufactures. Although South Carolina is preëminently an agricultural community, at each census from 1869-70 to 1909 the manufactures of the state have represented an increased proportion of the total value of products of the manufacturing industries of the United States. During the period from 1850-1910 the population of the state increased 126.7 per cent, while the value of the manufactured products, exclusive of the value of the products of the neighborhood and hand industries, increased fifteen fold. The most important industries (arranged in the order of value of products) are: cotton goods, lumber and timber products, cotton-seed oil and cake, fertilizers, and printing and publishing.

Education. The present free school system was established in 1868. School attendance is not compulsory, but there are restrictions on the employment of illiterate children in factories and mines. There are separate schools for white and colored children. The educational system is under the supervision of a state superintendent of education, with the assistance of a board composed of the governor, and seven other persons appointed by the governor. The state supports, wholly or in part, the University of South Carolina, at Columbia; the South Carolina Military Academy, at Charleston; Clemson Agricultural College, at Clemson; Winthrop Normal and Industrial College for Girls, at Rock Hill; and the Colored Normal, Agricultural, Industrial and Mechanical College, at Orangeburg. Among the other higher institutions of learning are the College of Charleston (non-sectarian), at Charleston; Newberry College

(Lutheran), at Newberry; the Presbyterian College of South Carolina, at Clinton; Erskine College (Associate Reformed Presbyterian), at Due West; Furman University (Baptist), at Greenville; Wofford College (Methodist Episcopal, South), at Spartanburg. Other colleges, for women, are Converse College (non-sectarian), at Spartanburg; the College for Women (Presbyterian), at Columbia; Columbia College (non-sectarian), near Columbia; Greenville Female College (Baptist), at Greenville; Lander Female College (Methodist Episcopal), at Greenwood; and the Due West Female College (Presbyterian), at Due West. For negroes, Claflin University (Methodist Episcopal) at Orangeburg; Allen University (African Methodist Episcopal), at Columbia; and several normal and industrial schools. There are theological seminaries at Columbia, at Due West (Associate Reformed Presbyterian), and at Mt. Pleasant (Lutheran).

Government. South Carolina is governed under a constitution adopted in 1895. Those who apply for registration to vote must be able to read and write any section of the constitution submitted to them by the registration officer, or must show that they have paid all taxes for the previous year on property worth \$300 or more. Other requirements for registration are: residence in the state for two years (for ministers in charge of organized churches and teachers of public schools a residence in the state of six months only is required), in the county for one year, and in the polling precinct for four months, and the payment six months before election time of a poll-tax. Idiots, insane persons, paupers, convicts, and persons convicted of certain crimes (not pardoned by the governor) are disqualified for registration to vote. **EXECUTIVE.** The governor holds office for two years, and is eligible for re-election. The governor and lieutenant-governor must be at least thirty years of age, and must have been citizens of the United States and citizens and residents of the state for five years. The lieutenant-governor acts as president of the Senate and succeeds the governor if the governor is removed from office by death, resignation, or otherwise. Other administrative officers of the state are: a secretary of state, a comptroller-general, an attorney-general, a treasurer, an adjutant and inspector-general, and a superintendent of education, each elected for two years. The governor's veto power extends to the separate items in appropriation bills; it may be overcome by a two-thirds majority in each house of the General Assembly. **LEGISLATIVE.** The legislature, officially styled the General Assembly, is composed of a Senate and a House of Representatives. The Senate is composed of one member from each county,

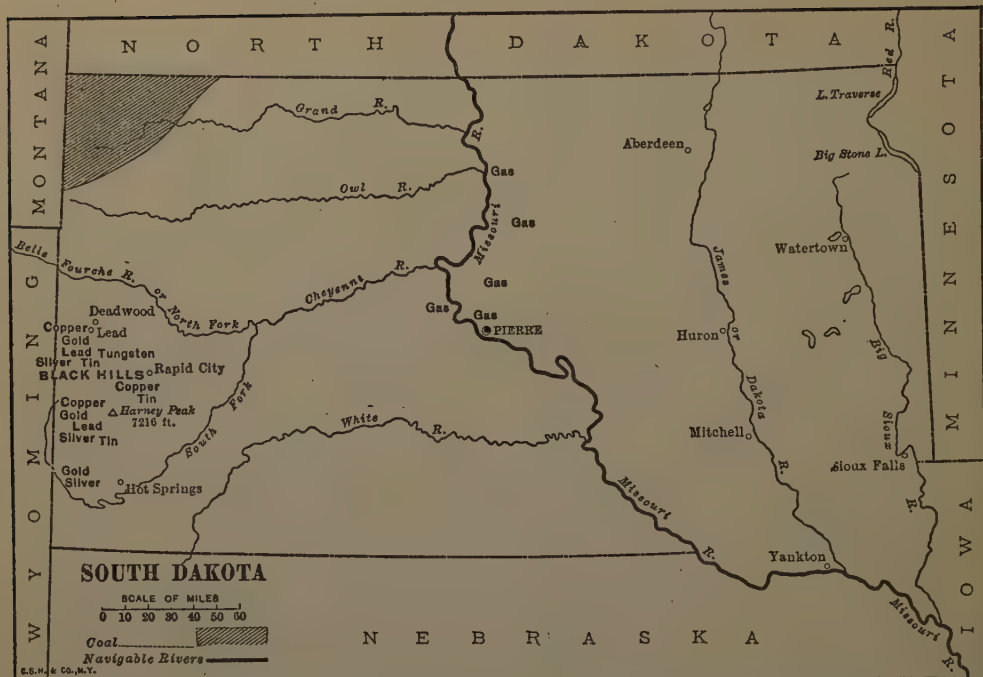
elected for a term of four years; one-half of the senators retire every two years. Members of the House of Representatives are elected for two years, and are apportioned among the counties according to population. The General Assembly meets annually at Columbia on the second Tuesday in January. The length of session is unrestricted by law. **JUDICIARY.** The judicial power of the state is vested in a supreme court and two circuit courts, a court of common pleas having civil jurisdiction, and a court of general sessions having criminal jurisdiction. The supreme court consists of a chief justice and four associate justices, who hold office for ten years; a majority of the justices must agree on a decision, and there must always be an odd number of justices on the bench. In each of the eight circuits is a circuit judge, elected for four years. The magistrates or justices of the peace are appointed by the governor. **LOCAL GOVERNMENT.** The unit of local government in South Carolina is the county, which the state constitution provides "shall be a body politic and corporate." The clerk of the circuit court in each county is elected by the people of the county for a term of four years. The voters of each county also elect a sheriff and a coroner, each for a term of four years. Counties are divided into townships, each of which likewise constitutes a body politic and corporate, but there are no separate township governments, the existing divisions of counties into townships being for the purpose of convenience in adjusting taxes.

History. An unsuccessful attempt was made by the French to colonize what is now South Carolina, in 1652. The first permanent English settlement was made in 1670. Charleston was founded in 1680. The territory remained under a proprietary government with North Carolina until 1729, when it became a separate colony. Many of the early colonists were French Huguenots, Scotch, Irish, Swiss, and Germans. South Carolina was the scene of many battles during the Revolution, those of Ft. Moultrie, Charleston, Camden, King's Mountain, Cowpens, and Eutaw Springs, being among the most notable. It was held by the British 1780-1781. Its advocacy of nullification nearly led to civil war in 1832-33. It was foremost among the southern states in the advocacy of the states' rights doctrine, and was the first state to secede (Dec. 20, 1860). It opened the Civil War by the bombardment of Fort Sumter (April 12, 1861), suffered severely by the blockade attacks at Charleston Harbor, and near the close of the war (in 1865) by the march of Sherman's army. It was readmitted to the Union in 1868. The state was visited by a severe earthquake in 1886.

SOUTH DAKOTA

SOUTH DAKOTA, a West North-Central State of the United States, lies mainly between latitudes 42° 50' and 45° 56' N., and longitudes

96° 26' and 104° 3' W. It is bounded on the N. by North Dakota, on the E. by Minnesota and Iowa, on the S. by Nebraska, and on the W. by



Wyoming and Montana. South Dakota has an extreme length from east to west of 380 m., and an extreme width from north to south of 240 miles. In gross area it ranks fourteenth among the states of the Union (77,615 sq. m., of which 477 sq. m. represent water surface).

Relief. South Dakota lies in both the Prairie Plains and the Great Plains Provinces of the United States. With the exception of the Black Hills district in the southwest, the surface is in the main a plateau, having a mean elevation of 2,250 ft., the lowest point being Big Stone Lake on the northeastern boundary (970 ft.); the highest, Harney Peak in the Black Hills (7,216 ft.). The surface is divided into two very nearly equal sections by the Missouri River, which, entering the state from North Dakota, after crossing it in a southeasterly direction, forms a part of the southern boundary. East of the Missouri the surface presents few striking topographic features, but has a generally undulating appearance. In the extreme northeast the Coteau des Prairies (about 2,000 ft.), a range of low hills extending in a south-southeast direction through Marshall, Roberts, Grant, and Deuel Counties, forms the divide between the Minnesota River on the east, and the James River on the west. Numerous small lakes are scattered over the eastern and north-eastern parts of the state. West of the James River an elevated region, known as the Coteau du Missouri, forms the waterparting between the James and the Missouri Rivers (1,800 ft.).

West of the Missouri River the surface is much worn by stream erosion and broken by many clusters of hills, such as the Fox Ridge in the central part of the state and the Cave Hills in the northwest. In the southwest, in the region between the White River and the South Fork of the Cheyenne River, are the Bad Lands, or *Terres Mauvaises*, occupying an area about 120 m. long and from 30 to 50 m. wide. Here erosion has carved the surface into an infinite variety of forms—labyrinths, ravines and ridges, and pinnacles and columns. Northwest of the Bad Lands of the White River lie the Black Hills, an irregular dome shaped uplift, occupying an area of 3,000 sq. m. or more within this state, and extending into Wyoming. The district has a general elevation of 4,000–5,000 ft. above the sea, some ridges and peaks rising higher still. Among the central ridges are the rough crags of Harney, Custer, and Dodge peaks, the highest points in the state. A third of the total area is covered with forests of pine and other trees, which are now included in a forest reserve of the national government. The scenery of this region is remarkably varied and wild. There are several interesting limestone caverns, and Sylvan Lake in the high mountain district is a noted resort.

Drainage. A small area in the northeast is drained to the Red River system; aside from that, the drainage is wholly to the Missouri system. The Missouri enters the state near the center of the northern boundary, pursues a

winding southeasterly course, and from its intersection of the 43rd parallel of N. latitude to its junction with the Big Sioux River, separates South Dakota from Nebraska. Its most important tributaries are the Big Sioux, the James (or Dakota), the White, the Cheyenne, the Owl, and the Grand Rivers. The Big Sioux River rises in the northeast and flows almost directly south for a distance of 300 m., in the lower part of its course forming the boundary between South Dakota and Iowa. West of this stream and almost parallel with it is the James River, which rises in North Dakota and flows southward until it joins the Missouri River near Yankton. Of the western tributaries the Cheyenne is the most important, being formed by two branches, the Belle Fourche and the South Fork, which, after almost completely encircling the Black Hills, unite at a point nearly 350 m. from their sources. The country east of the Missouri River is dotted over with numerous ponds and lakes, some of the latter from 10 to 15 m. in diameter.

Climate. The climate of South Dakota is marked by great annual variations of temperature and a very small amount of rainfall. It is coldest in the northeast, and warmest in the region south of the Cheyenne and west of the Missouri Rivers. The winters are long and marked by exceedingly low temperatures, but owing to the dryness of the atmosphere the extremes are not so severely felt as they would be in a more humid region. The mean winter temperature ranges from 13° at Aberdeen to 25° F. at Rapid City in the Black Hills district. The range of temperature varies from about -40° in the coldest month to 110° F. or more in the summer. The warm Chinook winds have a moderating effect upon the general winter temperature. The rainfall is usually sufficient for the development of the crops, but a system of artificial irrigation is necessary in some parts. The average annual amount of rainfall for the state is about 20 in., ranging from 14 in. at Ashcroft to 26 in. at Aberdeen. The snows are generally light, and cattle may graze on the prairies during most of the winter, but there are occasionally severe blizzards, which are accompanied by intense cold and high winds.

Agriculture. East of the Missouri River the soil is often locally enriched by vegetable mold, and is well adapted for wheat growing; west of the Missouri River the soil is a mixture of sand and clay, with deposits of alluvium in the vicinity of streams. The larger valleys of the Black Hills district contain fertile alluvial deposits, but in the plains adjoining these mountains the soils are suitable only for pasture lands. There are occasional tracts throughout the state in which, owing to deficient drainage, an excess of alkali has accumulated, and these areas require special treatment before they can be made productive. The total area included in irrigation projects, completed or under way, is 201,685 acres. Agriculture is the leading industry in

South Dakota, 52.9 per cent of the total area being included in farms. The leading crops of the state (in the order of importance as judged by value) are: wheat, corn, oats, hay and forage, barley, flaxseed, emmer and spelt, and potatoes. About one-third of the wheat produced is of the durum or macaroni variety. Among the hay and forage crops "wild, salt, or prairie grasses" represent over five-sixths of the total acreage and two-thirds of the total value. The greater part of the grain in South Dakota is grown to the east of the Missouri River. Corn is reported from every county except two; almost half the acreage is reported from twelve counties forming a group in the southeast corner of the state. The state is especially well adapted for grazing, and the number of cattle, horses, sheep, and swine is constantly increasing. Fruit and vegetables, particularly potatoes, dairy and creamery products, eggs and poultry, are important.

Forests. With the exception of scattered fringes of timber in the water courses and in the planted groves along the eastern part of the state, the only forest area is in the Black Hills.

Minerals. The minerals of South Dakota are found chiefly in the Black Hills Region. South Dakota ranks as one of the leading states of the Union in the output of gold. Next in importance is silver, but the other minerals met with, including gypsum, mica, petroleum, natural gas, granite, marble, and tin, are of small commercial value.

Manufactures. The agricultural and mining industries of South Dakota are of much more importance than are its manufactures. The increase, however, in the number of manufacturing establishments, as well as the average number of wage earners engaged in manufactures, keeps pace with the general increase in population. The chief manufacturing industries of the state are the making of butter, cheese, and condensed milk, and flour—and grist-milling.

Education. Elementary and secondary education are free to all from six to twenty-one years of age. School attendance is compulsory for all between the ages of eight and fourteen years, for at least sixteen weeks in the year, twelve of which must be consecutive. At the head of the public school system is a superintendent of public instruction, elected for a term of two years. In each county there is a county superintendent, and in each school district a board of directors. The educational institutions of the state are all under the management of a board of regents of five members, who are appointed by the governor with the approval of the Senate for terms of six years. The leading state institutions are the State University, at Vermilion; the Agricultural College and the Agricultural Experiment Station, at Brookings; the State School of Mines, at Rapid City; and normal schools at Spearfish, Madison, Aberdeen, and Springfield. Denominational schools for

higher learning are Yankton College and Redfield College (Congregational), Huron College (Presbyterian), and Dakota-Wesleyan University (Methodist Episcopal), at Mitchell. The Norwegian Lutherans have a normal school at Sioux Falls, and there are Roman Catholic schools at Sioux Falls, Deadwood, and Aberdeen.

Government. The state is governed under its original constitution of 1889, and its subsequent amendments. Suffrage is granted to all male citizens of the United States, or aliens who have declared their intention to become citizens, and to Indians who have severed tribal relations; but residence in the United States for one year, in the state for six months, in the county for thirty days, and in the election precinct for ten days are required. Excluded from suffrage are persons under guardianship, insane persons, or those convicted of treason or felony (unless pardoned), and United States soldiers, seamen, and marines. **EXECUTIVE.** The chief executive officers of the state are the governor, lieutenant-governor, secretary of state, treasurer, auditor, superintendent of public instruction; attorney-general, and commissioner of schools and public lands, all elected biennially by direct popular vote. The governor and lieutenant-governor must be citizens of the United States, qualified electors of the state, at least thirty years old, and residents of the state for two years preceding the election. The governor may remit fines and forfeitures, and grant reprieves, commutations, and pardons; he has a veto power extending to items in appropriation bills, but his veto may be overridden by a two-thirds vote in each house. The lieutenant-governor presides over the Senate. **LEGISLATIVE.** The legislature consists of a Senate and House of Representatives, members of which are elected biennially. Senators and representatives must be qualified electors, citizens of the United

States, at least twenty-five years of age, and residents of the state for two years next preceding the election. The legislature meets at Pierre, sessions of the legislature are biennial (odd number years), and are limited to sixty days. **JUDICIARY.** The judicial department consists of the supreme court, circuit courts, county courts, justices of the peace, and police magistrates. The supreme court consists of five judges chosen for six years. The state is divided into twelve circuits, and one judge is elected by the voters of each circuit for a period of four years. In each county there is a county court, with a county judge who is elected by popular vote for two years. **LOCAL GOVERNMENT.** For the administration of local government the state is divided into counties, and these in turn are subdivided into townships and municipal corporations. The chief county authority is a board of commissioners elected on a general ticket; the township authority, a board of supervisors or trustees. The county officers are a judge, clerk of the court, sheriff, auditor, registrar of deeds, treasurer, states-attorney, surveyor, coroner, and superintendent of schools—all elected biennially.

History. The territory included within the present limits of the state was a part of the District of Louisiana from 1803-'05; of the Territory of Louisiana from 1805-'12; and of the Territory of Missouri from 1812-'20. The section east of the Missouri was successively a part of the Territories of Louisiana, Wisconsin, Iowa, and Minnesota; and the western section a part of the Territory of Nebraska. In 1861 the Territory of Dakota was created, including the present Dakotas and portions of Wyoming and Montana. The Dakotas acquired their present territorial limits in 1882. The territory was divided into two states in November, 1887, and both were admitted to the Union on November 2, 1889.

TENNESSEE

TENNESSEE, one of the East South-Central States of the Union, lies between latitudes 35° and 36° 39' N. and longitudes 81° 37' and 90° 28' W. It is bounded on the N. by Kentucky and Virginia; on the E. by North Carolina, on the S. by Georgia, Alabama, and Mississippi; and on the W. by Arkansas and Missouri. The state has an extreme length from E. to W. of about 400 m., and from N. to S. of 109 m., and ranks in area thirty-fourth among the states of the Union (42,022 sq. m., of which 335 sq. m. are water surface).

Relief. The state falls naturally into three main divisions—East, Middle, and West Tennessee. East Tennessee comprises a mountain belt, a valley region, and a plateau region. The mountain belt is composed of the ranges of the Great Smoky (or Unaka Mountains) which form the eastern boundary line of the state. These mountains contain a number of high

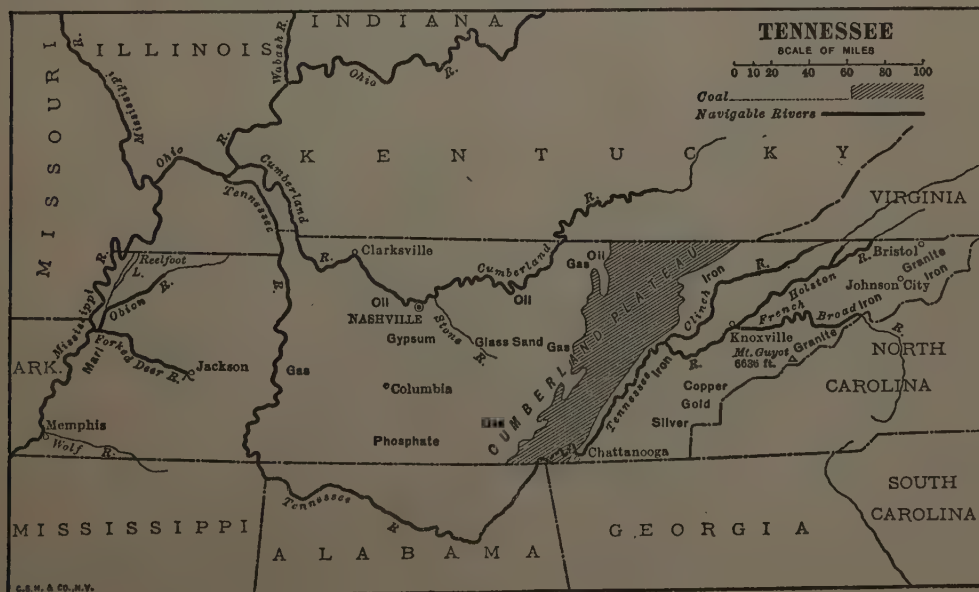
peaks, among them being Mount Guyot (6,636 ft.), Clingman Dome (6,619 ft.), Mount Le Conte (6,612 ft.), and about a dozen other peaks over 6,000 ft. in height. West of the boundary ranges lies a section of the Great Appalachian Valley, known here as the Valley of East Tennessee. This valley extends from northeast to southwest through the entire state, the valley belt being approximately 100 m. in width. It is occupied by numerous parallel ridges with intervening valleys, and its areas vary in height from 1,000 ft. in the northeast to 600 ft. in its southwestern portion. In the northeastern part of the valley the highest ridges are the White Oak Ridge and Taylor's Mountain, but the best known ridges, because of their association with battles of the Civil War, are the Missionary and Chickamauga ridges. The western border of the valley region is the steep Cumberland Escarpment which rises to the plateau region.

The plateau region comprises the Cumberland Plateau and the Highland Rim Plateau, the latter named from the Highland Rim Escarpment, which forms its western boundary. The Cumberland Plateau is occupied by the various ridges of the Cumberland Mountains; its surface is only slightly rolling, slopes gradually to the northwest, and its western border drops suddenly downward about 1,000 ft. to the Highland Rim Plateau. The latter is generally level except where it is cut by river valleys. West of the Highland Rim Escarpment is the Nashville Basin, elliptical in form, extending nearly across the state from northeast to southwest, with an extreme width of 60 m.; near its center is the city of Murfreesboro. West Tennessee lies west of the Tennessee River and east of the Mississippi River. Westward from the lower Tennessee River the surface of the East Gulf Coastal Plain rises rapidly to the summit of a ridge, and then descends gradually and terminates in a bluff from 150–200 ft. in height which overlooks the Mississippi flood plain. This section of Tennessee has a mean altitude of less than 350 ft. above sea level, and is bordered by alluvial bottom lands along the Mississippi River.

Drainage. The whole of the Appalachian Province of Tennessee, the southern portion of the Cumberland and Highland Rim Plateau Province, and the Nashville Basin are drained southward and westward by the Tennessee River and its tributaries. The valley of the lower Tennessee is drained northward by the same river. The northern portion of the Cumberland and Highland Rim Plateaus and the Nashville Basin are drained northward and westward by the Cumberland River and its tributaries. West

Tennessee is almost wholly drained into the Mississippi by a number of small streams. The Tennessee crosses the state twice; its principal tributaries are the Clinch, Holston, Hiwassee, Sequatchie, Elk, and Duck. The chief tributaries of the Cumberland are the Harpeth, Stone, and Obie's Rivers. The tributaries of the Mississippi, in Tennessee, direct or indirect, are the Big Hatchie, Wolf, Forked Deer, Obion, and Reelfoot. The Mississippi, Tennessee, and Cumberland Rivers, and some of their tributaries, afford extensive inland, waterways and commercial facilities. The smaller streams of the state are valuable for their water-power and, though in the mountainous parts there are very rapid falls, their fluctuations in volume render them unreliable for practical purposes. Reelfoot Lake, the only large lake in the state (in the northwestern part), occupies a depression formed during an earthquake in 1811. It is 18 miles long by about 3 miles wide.

Climate. Tennessee, lying throughout the greater part of its extent at a considerable elevation above sea level, has a delightful climate. The mean summer temperature ranges from 62° F. on the mountain boundary of the east to 72° in the Plateau region, and to about 78° on the East Gulf Plains; but the mean winter temperature for each of these divisions varies little from 38°; and the mean annual temperature ranges only from 57° in east Tennessee to 60° in west Tennessee. The average annual precipitation varies from 44 to 52 inches. The average annual snowfall is about 8 in., and the snow is usually light and melts within a few days. Both westerly and easterly winds are frequent, but warm, moisture-bearing winds blow from the



south or southwest across the state in a direction nearly parallel with the trend of the mountains. Violent storms are rare.

Agriculture. Parts of the mountain belt and of the plateau region are not adapted to agriculture, but they afford excellent and extensive pasturage. The valley lands of East Tennessee are highly productive; Middle Tennessee is mostly very productive, though a few of its counties have a rugged soil with clay subsoil; West Tennessee is extremely fertile, with a deep, black, mellow soil. Of the state's entire land area, approximately 75.1 per cent is in farms. The total farm acreage of the state is decreasing slightly, but there is a gain in the acreage of improved farm land, and also in the number of farms. The general character of Tennessee agriculture is indicated by the fact that somewhat less than one-half (45.8 per cent) of the total value of crops is contributed by cereals, about one-sixth (17.1 per cent) by cotton, and about one-tenth (10.5 per cent) by hay and forage. The remainder (representing in value 26.6 per cent of the total) consists mostly of potatoes and other vegetables, forest products, tobacco, and fruits and nuts. The leading crops (in the order of their importance as judged by value) are: corn, cotton, hay and forage, vegetables (other than sweet potatoes and yams), wheat, tobacco, cottonseed, potatoes (including sweet potatoes and yams), and oats. Considerable areas in the central part of the state are admirably adapted for grazing, and the raising of fine horses and cattle is of great importance.

Forests. Originally the state was well covered with forests, and about one-half of it is still woodland containing a large variety of trees. The trees of the mountain ridges are chiefly pines, firs, spruce, and hemlock. In the swamps of the western part of the state the cypress is dominant. In many parts of the state are mixed forests of white oak, red oak, ash, gum, maple, hickory, and chestnut.

Minerals. The minerals of greatest commercial importance are: coal, iron ores, copper ores, marble, and phosphate rock. About one-eighth of the area of the state is underlaid by the coal beds, which occupy a belt in the Cumberland Plateau from 50-75 m. wide, extending entirely across the eastern part of the state. The coal is all of a bituminous variety, and generally of excellent quality. Iron ore has been mined in many places in the state, and the output is constantly increasing. Copper is found chiefly in the southeastern corner of the state; phosphate of high quality is found in the south-central part of the state. Inexhaustible deposits of very beautiful marble are found in eastern Tennessee. Tennessee produces a small amount of gold and silver, each coming as a by-product from the copper refineries. Among the other minerals found and mined to a limited extent are: zinc, lead, manganese, barytes, fluorspar, slate, granite, and petroleum.

Manufactures. Tennessee is preëminently an agriculture and mining state, and its manufactures are based largely upon its rich natural resources. The development of manufacturing in the state has about kept pace with that in the United States as a whole. The most important industries (arranged in the order of the value of products) are: lumber and timber products, flour-mill and grist-mill products, foundry and machine-shop products, printing and publishing, cars and general shop construction and repairs by steam railroad companies, cottonseed-oil and cake, cotton goods, and iron and steel products.

Education. School attendance is compulsory throughout the state, and the employment of children under fourteen years of age in factories, workshops, and mines is illegal. There are separate schools for white and for colored children. The school system is under the general supervision of a state superintendent and a state board of education. For the administration of the common school system each county is divided into school districts and the management and control of the common schools are entrusted to county boards of education together with district advisory boards. At the head of the state educational system is the University of Tennessee; which embraces a college of liberal arts, a graduate department, a college of engineering, a college of agriculture, a school of pharmacy, an industrial department, a law department at Knoxville, and medical and dental departments at Nashville. For the higher education of teachers are four normal schools, at Johnson City, Memphis, and Murfreesboro (for whites); and one at Nashville for negroes. Other institutions of higher learning, not under the control of the state, are: the University of Nashville (non-sectarian); Washington and Tusculum College (non-sectarian), at Greenville; Cumberland University (Presbyterian), at Lebanon; Carson and Newman College (Baptist), at Jefferson; Fisk University (Congregationalist), at Nashville; University of Chattanooga (Methodist), at Chattanooga; University of the South (Protestant Episcopal), at Sewanee; Christian Brothers College (Roman Catholic), at Memphis; and Lincoln Memorial University (non-sectarian), at Cumberland Gap.

Government. Tennessee is governed under the constitution adopted in 1870. The right of suffrage is given to every male citizen of the United States, twenty-one years of age and over, who has been a resident of the state for one year, provided he has paid his poll-tax and has not been convicted of bribery, larceny, or other infamous crime. The election of the governor, members of the General Assembly, and congressmen is held biennially in even number years, on the first Tuesday after the first Monday in November; but the election of judicial and county officers is held on the first Thursday in August. **Executive.** The governor is elected by the people for a term of two years, and is

not eligible for more than three consecutive terms. He must be at least thirty years of age and must have been a citizen of the state for the last seven years before election. The governor has extensive pardoning power, but it does not extend to cases of impeachment. Among the more important officers appointed by him are: the superintendent of public instruction; the commissioner of agriculture, statistics, and mines; an assayer; a state entomologist; and officers of the penitentiary. The governor's veto may be overcome by the vote of a bare majority of the members of each house of the General Assembly. There is no lieutenant-governor. In case of a vacancy in the office of governor, the speaker of the Senate becomes acting governor. Other executive officers are the secretary of state, comptroller, and treasurer, each elected by the General Assembly for two years; and the attorney-general, who is appointed by the judges of the Supreme Court for a term of eight years. **LEGISLATIVE.** The legislative body or General Assembly is composed of a Senate and House of Representatives, members of which are elected for a term of two years, by counties or by districts having approximately the same population. The qualifications prescribed for senators and representatives are that they shall have been citizens of the state for three years, and residents of the county or district they are to represent for one year immediately preceding election, and that senators shall be at least thirty years of age. The legislature meets at Nashville, biennially, in odd number years, on the first Monday in January, and the session is limited to seventy-five days.

JUDICIARY. The administration of justice is vested in a supreme court, a court of civil appeals, chancery courts, circuit courts, county courts, justice of the peace courts, and, in certain cities and towns, a recorder's court. **LOCAL GOVERNMENT.** The government of each county is vested mainly in the county court, which acts for the county as a corporation and attends to all county business. The chief county officers are: the county judge, prosecuting attorney, sheriff, coroner, clerk of court, registrar of deeds, assessor (in some counties), treasurer, surveyor, superintendent of schools, superintendent of the poor, and health officer.

History. Tennessee was included in the English grant to Sir Walter Raleigh in 1584, and in the later Stuart grants, including that of North Carolina, in 1663. The region was claimed in early times by North Carolina, and by the French and Spanish. The leading settlement was made from Virginia and North Carolina in 1769. North Carolina ceded its claims to the United States, and the territory was formed in 1790. It was admitted to the Union as a state in 1796. It seceded June 8, 1861, and next to Virginia was the chief battleground during the Civil War. Among the stirring events of that period were the capture of Fort Henry and Fort Donelson and of Island No. 10; the battles of Shiloh, Memphis, Murfreesboro, and Chickamauga; the relief of Chattanooga and Knoxville; and the battles of Franklin and Nashville. The state was readmitted to the Union in 1866, and since 1880 has grown rapidly in wealth, population, and industrial development.

TEXAS

TEXAS, a West South-Central State of the United States of America, lies between latitudes 25° 51' and 36° 30' N., and longitudes 94° 30' and 106° 30' W. It is bounded on the N. by New Mexico, Oklahoma, and Arkansas; on the E. by Oklahoma, Arkansas, and Louisiana; on the SE. by the Gulf of Mexico; on the SW. by Mexico; and on the W. by New Mexico. Texas is the largest state in the Union, having a gross area of 265,896 sq. m., of which 3,498 sq. m. are water surface.

Coast. The coast-line of Texas stretches along the Gulf of Mexico for a distance of 400 m., from Sabine Pass in the north to the mouth of the Rio Grande River in the south. Four-fifths of the main coast-line is bordered by a series of long, narrow, sandy islands and peninsulas, back of which lie quiet lagoons, and, at the mouths of the rivers, shallow bays indenting the mainland. Bolivar Peninsula and Galveston Island lie between Galveston Bay and the Gulf. Matagorda Peninsula forms the outer defense of Matagorda Bay, and Matagorda Island of San Antonio Bay. Back of St. Joseph and Mustang Islands, respectively, lie Aransas and Corpus Christi

Bays. Padre Island, extending north for 100 m. from the mouth of the Rio Grande River, encloses Laguna de la Madre.

Relief. Texas is crossed by the Gulf Plains Province, the Prairie Plains Province, and the Great Plains Province. The surface rises from sea level along the coast to altitudes in excess of 6,000 ft. among the ranges which cross the extreme southwestern part of the state. The Gulf Plains Province of the state, a part of the Great Coastal Plain of the United States, lies immediately back of the coast-line. For a distance of 30-100 m. inland the country is nearly level, no point being more than 100 ft. above sea level. Farther west the surface is more broken and rises to maximum elevations of 600-700 feet. The Gulf Plains Province merges with that of the Prairie Plains along a line drawn southwest from the southeast corner of Oklahoma. Along its eastern margins the Prairie Plains section is gently rolling in the northeast, but becomes quite rugged towards the south, and the western half rises in a succession of scarps or steppes to an elevation of 2,500 ft., to the Great Plains Province. The Great Plains region, beginning

about the 100th meridian, occupies nearly all of the western half of the state and ranges in elevation from 2,000–4,000 ft. above the sea. South of about 32° N. latitude, the country is known as the Edwards Plateau, and northwards to the Canadian River as the Llano Estacado. These high rolling plains are deeply cut by the rivers that flow across them, often through gorges and canyons, between which are broad stretches of rolling to nearly level plateau country. In the southeastern corner of the Trans-Pecos Province is a smaller plain known as the Stockton Plateau, but the remaining portion of the Trans-Pecos Province is traversed by isolated mountain ranges of the Basin Range, or block mountain type. The highest point in the state is Baldy Peak, in Jeff Davis County. Between the Basin ranges there are numerous extensive intermountain basins, lying at elevations of 2,000–4,000 ft. above sea level, which constitute a continuance of the High Plains southwest to the Rio Grande River.

Drainage. The drainage of Texas is wholly to the Gulf of Mexico, either directly or indirectly. The northern portion of the Panhandle is drained by the Canadian River eastward into the Arkansas; the southern portion of the Panhandle and a stretch along the northern border of the state is drained by the Red River eastward and southeastward into the Mississippi. The Rio Grande and its principal tributary, the Pecos, drain narrow basins in the southwest. These two rivers and the Canadian River rise in the Rocky Mountains in Colorado and New Mexico, but all the other rivers by which the state is drained rise within its borders and flow directly into the Gulf of Mexico. The Red, the Brazos, the Colorado, the Guadalupe, the Nueces, and the San Antonio, rise on the eastern or southeastern border of the Great Plains prov-

ince, the Sabine and the Trinity on the Prairie Plains, and numerous small streams are wholly in the Coastal Plain. In the Great Plains region the rivers have cut deep canyons. Many of the large rivers have deposited great quantities of silt along their lower courses on the Coastal Plain, where the current becomes sluggish and the banks are frequently inundated, and many of them are obstructed by sand-bars at their mouths. The Red River and the Big Cypress Bayou afford important steamboat navigation for the northeast section; the Sabine River, forming part of the boundary between Louisiana and Texas, is navigable for small steamboats for some distance; the Trinity River is over 500 m. in length, of which 300 m. and more are navigable for steamboats at high stages of water; the Brazos is navigable for 300 m. from its mouth, but at low-water its channels are encumbered by shifting sands; the Colorado River empties into Matagorda Bay and is navigable to Austin; the Guadalupe, the San Antonio, and the Nueces afford but few commercial facilities. The Rio Grande in its lower course is a comparatively large stream, crooked and swift, but navigable for considerable distances at periods of high-water. The longer rivers, often mere rivulets near their sources, become swift and powerful streams during spring freshets. Texas has numerous small fresh-water lakes on the Coastal Plain, and both salt- and fresh-water lakes in the western part of the state. The best known lakes are Grand Lake in Colorado County, Clear Lake in Harris County, and Caddo Lake on the Louisiana border.

Climate. The climate on the Coast Plains is semitropical, tempered by winds from the Gulf. The north experiences cool winters with occasionally heavy snow storms. The mean annual temperature decreases to the north-westward with an increase of altitude, and ranges from about 74° in the Rio Grande valley to 55° F. in the northern portion of the Panhandle. Along the coast, there are only three or four days during the year in which the temperature drops below freezing point. The mean temperature for January at San Antonio is 51° and the summer mean 82° F. At Amarillo, the corresponding means are 34°, and 76° F. The average annual rainfall decreases from about 48 in. at Galveston to 9½ in. at El Paso. Along the coast the autumn months are the wettest and the spring months are the driest; in the middle, eastern, and northeastern parts of Texas, the spring months are the wettest and the winter months are the driest; and in the western and southwestern parts, the summer months are the wettest and the spring months are the driest. The average annual snowfall for the state is about 5 in., ranging from 20 in. in the northern portions of the Panhandle to scarcely any along the coast and in the Rio Grande valley. The prevailing winds throughout most of the state are southerly or southeasterly in spring and summer. Along the coast they continue in the same direction



throughout the year, but inland they usually shift to north or northwest, either in autumn or winter. The air of western Texas is so dry that meats are perfectly preserved in the open air without salt. The "Norther," a sudden and extreme change of temperature produced by a rush of cold wind from the north, lasts ordinarily for three days, and the fall in temperature is often as much as 30°.

Agriculture. The soils of Texas are as varied as are its surface features. The greater part of the Gulf Plain and the Prairie districts form good general farming land. The most striking characteristic of the western half of Texas is the great area of arid and semiarid land, utilized for grazing purposes only or left unutilized. The same was true until recently of the extreme southern portion. As a whole, Texas ranks as one of the greatest agricultural states in the Union. Of the land area of the state 67 per cent is in farms. The general character of Texas agriculture is indicated by the fact that nearly two-thirds (63.3 per cent) of the total value is contributed by cotton, and less than one-quarter (22.5 per cent) by cereals. The remainder, representing 14.2 per cent of the total, consists mostly of hay and forage, potatoes and other vegetables, and forest products. The leading crops (in the order of their importance as judged by value) are: cotton, corn, cottonseed, hay and forage, rough rice, Kafir corn, milo maize, oats, wheat, and sweet potatoes and yams. Cotton has an acreage exceeding that of all other crops and a value almost twice as great. Strawberries are by far the most important of the small fruits raised in Texas, with blackberries and dewberries ranking next. The acreage devoted to the growing of small fruits is steadily increasing. Orchard fruits, grapes, nuts, and tropical fruits are extensively cultivated. The sugar crops, including cane-sugar, sorghum, and beet sugar, are important. Cereals are grown generally throughout the state, excepting in the arid western land. The crop of Indian corn is especially large in a belt of counties beginning near the northeastern corner of the state and extending in a south-westerly direction. Most of the rice is raised along the seaboard in the southeastern corner of the state. The largest crops of cotton are grown in the cereal growing counties. The stock-raising interests of Texas are greater than those of any other state in the Union.

Forests. Nearly one-quarter of the area of Texas is estimated to be wooded, and the lumber producing possibilities are of great economic importance. The pine and hardwood areas occur chiefly in the northeastern part of the state, and are bordered on the west by scattering growths of hardwood. Sparse scrub timber, of little value except for domestic purposes, covers the region to the westward. Outside of these general forest areas, forest products are of comparatively slight value, the exceptions being the dense growth of live-oak in certain restricted areas, and scattered patches of hickory.

Fisheries. The state has valuable fisheries, the principal catches being red snappers, oysters, squeteague, and channel bass.

Minerals. Petroleum is the most valuable of the mineral products of Texas. Next in order of importance are coal, clay products, natural gas, asphalt, stone, lime, and salt. Other minerals found in small quantities are copper, lead, zinc, manganese ores, and tin.

Manufactures. The manufactures of Texas depend largely for their raw materials upon stock-raising, agriculture, and the mineral products of the state; they have been greatly stimulated by the rapid increase in the output of these materials. The most important industries (arranged in the order of the value of products) are: slaughtering and meat packing, flour-milling, lumbering and the manufacture of timber products, the manufacture of cottonseed-oil and cake, and the refining of petroleum.

Education. The public schools of the state are supervised by a state board composed of the governor, comptroller, and secretary of state; by a superintendent of public instruction, who is *ex officio* secretary of the board; by county superintendents (in counties having a school population of 3,000 or more); by superintendents and boards of trustees in corporate towns and cities; and by school commissioners in the rural districts. Texas has a larger permanent school fund than any other state in the Union. School revenues, aside from that derived from the permanent fund, are raised by state and local taxes, by a poll-tax on males between the ages of twenty-one and sixty, by a state occupation tax, by county funds, and by tuition fees. Separate schools are maintained for white and colored children, and impartial supervision is made for both races. For higher education the state maintains the University of Texas, at Austin (the Medical Department at Galveston), and it supports, either wholly or in part, an Agricultural and Mechanical College, at College Station; a Land Grant College, near Bryan; the Sam Houston Normal Institute, at Huntsville; the North Texas State Normal, at Denton; the Southwest Texas Normal, at San Marcos; the School of Industrial Arts, for girls, at Denton; and the Prairie View Industrial and Normal School, for negroes, near Hempstead. Among many other institutions for higher education in the state may be mentioned: the Rice Institute of Liberal and Technical Learning (non-sectarian), at Houston; Baylor University (Baptist), at Waco; the East Texas Normal and Industrial Academy (Baptist), at Tyler; Trinity University (Presbyterian), at Waxahachie; Austin College (Presbyterian), at Sherman; Southwestern University (Methodist Episcopal), at Georgetown; the Polytechnic College (Methodist Episcopal, South), at Fort Worth; Texas Holiness College (Holiness), near Greenville; Texas Christian University (Christian), at Thorp's Spring; St. Edward's College (Roman Catholic), at Austin; North Texas Female Col-

lege (Methodist Episcopal, South), at Sherman; the Academy of Our lady of the Lake (Roman Catholic), at San Antonio; Paul Quinn College for Negroes (African Methodist Episcopal), at Waco; Tillitson College (Congregational), at Austin; and Bishop College (Baptist), at Marshall.

Government. Texas is governed under the constitution adopted in 1876, and its amendments. All male citizens over twenty-one years of age, and residents of the state for one year, and of the county or election district for six months immediately preceding election (except paupers, idiots, lunatics, felons, and persons who have taken part either as principal or second in fighting a duel or sending a challenge) have the right to suffrage. **EXECUTIVE.** The chief executive officers are a governor, lieutenant-governor, secretary of state, comptroller of public accounts, treasurer, commissioner of the general land office, and attorney-general. All executive officials are elected by popular vote for terms of two years, except the secretary of state, who is appointed by the governor. The governor and lieutenant-governor must be at the time of election at least thirty years of age, citizens of the United States, and residents of the state for the preceding five years. In addition to the usual privilege of granting pardons and reprieves, the governor controls considerable patronage, and possesses a power of veto which extends to separate items in appropriation bills. A two-thirds majority in each house is necessary to override a veto. **LEGISLATIVE.** The state legislature is composed of a Senate and a House of Representatives. Senators are elected by popular vote for four years, one-half retiring every two years. Representatives are elected biennially. Senators and representatives must be at least twenty-six years of age, citizens of the United States, qualified electors of the state, and residents of the state for two years, and of the district for one year preceding the election. The legislature meets at Austin biennially (odd number years), but special sessions may be called by the governor. Sessions are limited to 60 days. **JUDICIARY.** The state judiciary consists of a supreme court of three members, elected for a term of six years, with civil juris-

diction only, largely appellate; a court of criminal appeals with three judges, elected for six years; courts of civil appeals with three judges, elected for six years; district courts each with one judge, elected for four years, with original jurisdiction in the more important civil and criminal cases and a limited appellate jurisdiction; county and justice of the peace courts, with original jurisdiction in misdemeanors and petty civil cases. The commissioners' court of five members, including the presiding judge, attends to all business matters of the county. **LOCAL GOVERNMENT.** The county is the unit of local government. Among the county officials are the prosecuting attorney, sheriff, clerk of court, county clerk, county assessor, county treasurer, county surveyor, and superintendent of schools, all elected by popular vote, and a county auditor who is appointed.

History. An attempt at settlement was made by Sieur de la Salle about 1685 and several missions were established by the Spaniards in the 18th century. The region was invaded by various adventurers early in the 19th Century. It formed, with Coahuila, a state of Mexico, and was settled rapidly about 1820-'30 by American colonists. Most of these colonists came from the southern states of the Union and brought their slaves with them. A rebellion against Mexico broke out in 1835; the garrisons at the Alamo and Goliad were massacred by the Mexicans in 1836; and the Mexicans were finally defeated by Houston at San Jacinto, April 21, 1836. Texas was a republic from 1836-'45, when it was annexed to the United States. It was largely the cause of the Mexican War of 1846, and the scene of many of the conflicts in that struggle. By the terms of the treaty which terminated the conflict, the Rio Grande River became the boundary between Texas and Mexico. As one of the slave states, Texas seceded in 1864, was the scene of many stirring events during the Civil War, and the last battle of that conflict was fought on its soil, at Palmito near Palo Alto, on the 13th of May, 1865, more than a month after the surrender at Appomattox. A hurricane and high tide in 1900 destroyed 4,000 lives and \$10,000,000 worth of property at Galveston.

UTAH

UTAH, one of the Mountain States of the United States, lies between latitudes 37° and 42° N., and longitudes 109° 5' and 114° 2' W. It is bounded on the N. by Idaho and Wyoming, on the E. by Wyoming and Colorado, on the S. by Arizona, and on the W. by Nevada. The state has an extreme length from north to south of 345 m., and an extreme width from east to west of 285 miles. In gross area it ranks tenth among the states of the Union (84,990 sq. m., of which 2,806 sq. m. represent water surface).

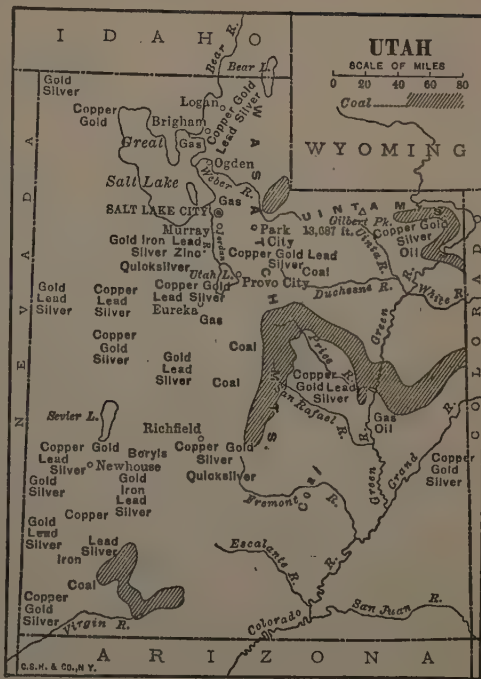
Relief. The mountains which enter Utah from Idaho near the center of the northern

boundary line, and extend southward through the state nearly to the Colorado River, are known as the Wasatch Mountains. These mountains have a general elevation of about 10,000 ft. and comprise many ranges, ridges, spurs, isolated mountain masses, and plateaus, and various local names are given to the different sections. They form a natural dividing line between the eastern and western portions of Utah. The eastern and more elevated portion, constituting a part of the Colorado Plateau Province, is occupied in the extreme north by the lofty Uinta Mountain Range, which,

running east and west, contains the highest points in the state; Gilbert Peak (13,687 ft.), Emmons Peak (13,624 ft.), and Wilson Peak (13,300 ft.). South of the Uinta Mountains the surface consists of many broad elevated plateaus lying from 9,000 to 10,000 ft. above sea level. These are generally forested, but as yet are mostly unoccupied by settlers. The plateaus are separated by deep and sometimes broad valleys carved out by erosion, and these owing to their fertility, are occupied to some extent by settlers. In the southern part of the state the high plateaus descend by a series of terraces or cliffs to the general level of the Grand Canyon platform of northern Arizona. Here also, in the wilderness of San Juan county, are found the largest and most famous natural bridges of the world, the largest having a span of 330 ft. and a height above the chasm below of 350 ft. The western portion of Utah, lying wholly within the Great Basin Province of the United States, has a mean elevation of from 4,000 to 5,000 ft. above the sea. The surface is characterized by nearly level desert areas broken at intervals by numerous mountain ranges having a north-south direction. Among these ranges may be mentioned the Oquirrh, the Beaver River, the Parowan, the Tushar, the Sevier, and the Iron Mountains.

Drainage. The state of Utah lies mainly in the Great Basin and is without navigable rivers or lakes. The eastern part is drained wholly by the Colorado River and its two head streams the Green and the Grand Rivers. The canyons of the Green, Grand and Colorado Rivers afford some of the most impressive and magnificent scenery in the world. Among the minor streams of the Colorado system are the Uinta, Duchesne, Price, San Raphael, Fremont, and the Escalante from the west; and the White and San Juan from the east. The drainage of western Utah is carried almost wholly to the salt lakes which are characteristic of this region, the largest and most famous being Great Salt Lake in the northern part of the state. This lake lies at an elevation of 4,200 ft. above the level of the sea; it is about 80 m. long and from 20 to 40 m. wide, and has a maximum depth of 48 feet. It has no outlet, and incloses several islands. Its principal tributaries are the Bear, the Jordan, and the Weber Rivers, all of which enter on the eastern side. The waters of this lake are buoyant and heavily impregnated with chloride of sodium (common salt). Utah Lake, drained into the Great Salt Lake by the Jordan River, and Lake Sevier in Millard County, are next in importance to Great Salt Lake. A small area in the south-western part of the state is drained by the Virgin River to the Colorado system.

Climate. The state has a wide range in climatic conditions. Extremely cold weather occurs on the lofty plateaus and mountain ranges, but a milder climate prevails in the intervening valleys and basins. The mean temperature of the state ranges from 58° in the



extreme south to 42° F. in the north. Winter temperatures of 15° to 20° below zero are not uncommon in the higher altitudes, while summer temperatures of over 100° are frequently recorded in the south. At Salt Lake City the mean winter temperature is 31°, the mean summer temperature 73½° F. The rainfall in the north-central portion of the state is sufficient for growing grain crops on the higher lands without irrigation. The normal annual precipitation in that section is about 15 inches. In the west the normal annual precipitation ranges from 5 to 10 inches. Irrigation is practised throughout the state.

Agriculture. Only 6.5 per cent of the total land area of Utah is included in farms. The greater portion of the agricultural land of the state lies along the western border of the mountain and plateau district; where waters from higher levels are brought down and applied to the sandy and gravelly loams along the margin of the Great Basin Region, to the finer grained sediments of the stream valleys, and to the level floors of recent lake basins. Dairying is the most important agricultural industry. One of the striking characteristics of Utah is the presence of great areas of semiarid lands which are utilized, if at all, for grazing purposes only. Upon this land are many very large farms or ranges, sometimes exceeding 100,000 acres in extent. The general character of Utah agriculture is indicated by the fact that about one-

third (33 per cent) of the total value of crops is contributed by the cereals, about two-fifths (39.3 per cent) by hay and forage, and about one-tenth (10.1 per cent) by sugar crops. The remainder, representing in value 17.6 per cent of the total, consists mostly of potatoes and other vegetables, and fruits and nuts.

Forests. The forest resources of Utah are limited in value; the only timber of commercial importance is found in the yellow pine forests of the Uinta Range in the northeastern corner of the state. The timber of the Wasatch Range is small and scattered. There are in Utah fourteen national forest reserves embracing over 7,400,000 acres.

Minerals. The state has valuable mines—chiefly gold, silver, copper, and coal. Other mineral products are lead, zinc, manganese ores, gypsum, petroleum, and sulphur. Salt is obtained by solar evaporation. Among other non-metallic minerals are limestone and sandstone, marble, onyx and clay products. Many precious and semiprecious stones are found in Utah, including garnet, amethyst, jasper, topaz, tourmaline, opal, malachite, etc.

Manufactures. The waters of the numerous mountain streams have been utilized in the generation of electrical energy, which is used not only in manufacturing but also in mining and other industries. Although Utah is comparatively unimportant as a manufacturing state, its manufactures have shown marked increase in recent years. Three industries, the smelting and refining of copper, the smelting and refining of lead, and the manufacture of beet sugar, greatly predominate in importance. Next in the order of value are flour-mill and grist-mill products, cars and general shop construction and repairs by steam railroad companies, printing and publishing, and the manufacture of butter, cheese, and condensed milk.

Education. The general free school system of Utah was founded in 1890 by a law which consolidated all the districts in each city into one large school district, and classified Salt Lake City as a city, and Ogden, Logan, and Provo as cities of the second class for school purposes. At the head of the public school system is a state superintendent of public instruction, elected for four years, and a board of education composed of the state superintendent, the president of the state university, the president of the agricultural college, and two appointees of the governor, all serving for four years. Each county has a superintendent, whose term is two years. In each district there is a board of three trustees, one retiring each year. Two or more contiguous districts may unite to form a high school district. School attendance is compulsory for twenty weeks each year in rural districts, and for thirty weeks each year in cities of the first and second class for all children between eight and sixteen years of age. In addition to the public schools, the state maintains the University of Utah, at Salt Lake City and, affiliated with it, the State

Agricultural College and Experiment Station, at Logan; a branch Normal School at Cedar City; and a State School for the Deaf and Blind, at Salt Lake City. The state also maintains a state art collection, and a course of public lectures on art. The Mormons control Brigham Young University, at Provo; the Brigham Young College, at Logan; the Latter Day Saints University at Salt Lake City; and academies at Ogden, Ephraim, Castle Dale, Beaver, and Vernal. Other denominational schools are St. Mary's Academy (Roman Catholic), in Salt Lake City; All Hallows College (Roman Catholic), in Salt Lake City; Westminster College (Presbyterian), in Salt Lake City; and Presbyterian Academies at Logan, Springville, and Mt. Pleasant; Rowland Hill Academy (Protestant Episcopal, for girls), at Salt Lake City; and Gordon Academy (Congregational), at Salt Lake City.

Government. The state is governed under the first constitution adopted in 1895, and its amendments. Entitled to the suffrage are citizens of the United States, male or female, twenty-one years of age or over, who have lived in the state for one year, in the county for four months, and in the precinct for sixty days preceding election. Excluded from the suffrage are idiots, insane persons, and those convicted of treason or crime against the elective franchise; but in elections levying a special tax, creating indebtedness, or increasing the rate of state taxation, only those who have paid a property tax during the preceding year may vote. **EXECUTIVE.** The executive department consists of the governor, secretary of state, auditor, treasurer, attorney-general, and superintendent of public instruction—all elected by the people at the time of the presidential election and holding office for four years from the first day of January following the election. All of these officers must be qualified electors and must have resided within the state for five years preceding their election. The governor and secretary of state must be at least thirty years old. With the consent of the Senate the governor appoints the minor executive officials and fills vacancies in the elective offices; his veto power which extends to items in appropriation bills, can be overridden by a two-thirds vote of each house of the legislature. **LEGISLATIVE.** The legislature consists of the Senate and House of Representatives. It meets at Salt Lake City biennially, on the second Monday in January (odd number years). No person is eligible to either house who is not a citizen of the United States, at least twenty-five years of age, a resident of the state for three years, and of the district from which he is chosen for one year. Senators are elected for four years, one-half of the membership retiring every two years. Representatives are elected for two years. No person who holds any office of profit or trust under the state or federal governments is eligible to the legislature. **JUDICIARY.** Judicial power is vested in the Senate, sitting as a court of im-

peachment, in the supreme court, in district courts, in justices of the peace, and in such inferior courts as may be established by law. The supreme court consists of three judges elected for a term of six years, but the term of one expires every two years, and that justice who shall have the shortest time to serve acts as chief justice. The state is divided into seven districts in which from one to four judges are elected for terms of four years. At least three terms yearly must be held in each county. Each precinct elects a justice of the peace. **LOCAL GOVERNMENT.** The chief fiscal and police authority is the board of county commissioners of three members, two elected every two years, one for two years and one for four. Other county officers are the clerk, sheriff, treasurer, auditor, recorder,

surveyor, assessor, attorney, and superintendent of district schools. Cities are governed by a commissioner and a council.

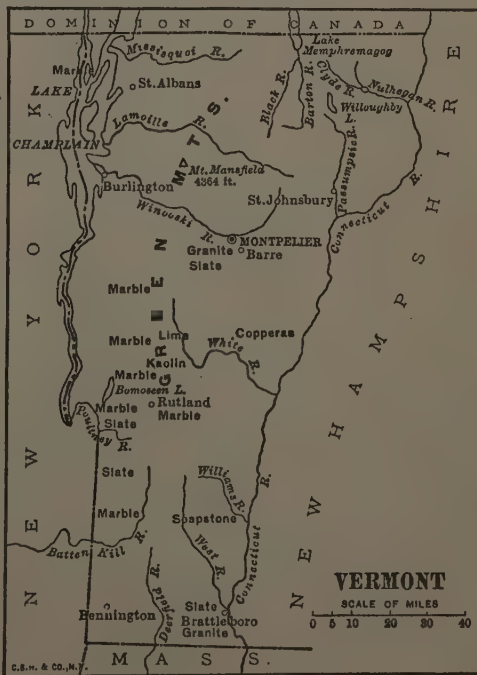
History. This region formed part of the lands ceded by Mexico in 1848. The Mormons settled here in 1847-'48. Utah was organized as a territory in 1850. The Mountain Meadow Massacre of Gentile settlers by Indians and Mormons occurred in 1857. Disturbances which occurred in 1856 led to the sending of an expedition of United States troops to Utah in the following year. The Mormons submitted to the federal government in 1858. The Edmonds Act of 1882, followed by supplementary legislation, punished and discouraged polygamy in the Mormon church. Utah was admitted as a state in 1896.

VERMONT

VERMONT (Green Mountain), the north-westernmost of the New England States and the only one of that group which is wholly inland, lies between latitudes $42^{\circ} 44'$ and $45^{\circ} 0' 45''$ N., and longitudes $71^{\circ} 30'$ and $73^{\circ} 39'$ W. It is bounded on the N. by the Canadian province of Quebec; on the E. by New Hampshire, from which it is separated by the Connecticut River; on the S. by Massachusetts; and on the W. by New York from which it is in part separated by Lake Champlain. Vermont has an area of 9,564 sq. m. and of this 440 sq. m. is water surface. In size it ranks as the forty-second state of the Union.

Relief. The surface of Vermont is plateau-like and forms a part of the New England Upland. It is broken by hills, mountain ranges, and isolated peaks, and cut by deep narrow river valleys. The mean elevation of the state is about 1,000 feet. Extremes range from 100 ft. on the northeastern shore of Lake Champlain to over 4,000 ft. in the southwestern part of the state. The Green Mountains run nearly north and south through the state and form its most important physiographic feature. The range for about two-thirds of its length north from Massachusetts is but slightly broken, but in its northern third is interrupted by the deep valleys of the Winooski and Lamoille Rivers. The summits range from 2,000–4,364 ft., the latter being the height attained by Mount Mansfield, the culminating point in the state. Other summits above 4,000 ft. are Killington Peak (4,241 ft.), Camel's Hump (4,088 ft.), Mount Lincoln (4,078 ft.), and Jay Peak (4,025 ft.). West of the Green Mountains a line of heights, known as the Taconic Mountains, extends from New York and Massachusetts northward to the center of the state; and another broken series of heights known as the Red Sandrock Mountains run northward along the shore of Lake Champlain. The Taconic Mountains are low, irregular masses of 1,500–2,000 ft., and reach their culminating elevation in Mount Equinox (3,816 ft.), southwest of Manchester. The

highest point of the Sandrock Mountains is Snake Mountain (1,271 ft.), in Addison County. Along the entire eastern border of the state are a number of tall and conical shaped masses known as the Granitic Mountains, and between these and the Green Mountains there are many high hills and deep and picturesque valleys. Mount Ascutney (3,320 ft.), tallest of the Granitic Mountains, is about two miles west of the Connecticut River in Windsor County. The mountains are generally rounded in outline, are largely clad with forests, and afford rich pasturage. The area of lowest eleva-



tion in Vermont is in the northwestern corner and in it are included the beautiful islands in Lake Champlain.

Drainage. In the southern two-thirds of the state, the Green Mountains form the water-parting between the streams that flow west or northwest into the Hudson River and Lake Champlain, and those that flow east into the Connecticut River; farther north, the Granitic Mountains form the parting between eastward and westward flowing streams; and a third drainage basin is the small area tributary to Lake Memphremagog on the northern border, whose waters, like those of Lake Champlain, are carried to the St. Lawrence River. The largest and only navigable rivers of Vermont are among those which empty into Lake Champlain; the Missisquoi, the Lamoille, the Winooski, and Otter Creek. The Batten Kill is the chief river flowing into the Hudson. The Black, Barton, and Clyde Rivers flow into Lake Memphremagog. The Deerfield, West, Williams, White, Passumpsic, and Nulhegan Rivers are the largest of the streams flowing to the Connecticut. North of Massachusetts the Connecticut River is wholly in New Hampshire, Vermont's eastern boundary being low-water mark on the west bank of that river. Lake Champlain, whose discharge is northward through the Richelieu River into the St. Lawrence River, lies in the valley between the Green and Adirondack Mountains. It extends along the western boundary of Vermont for 110 miles and more, and the picturesque shores and islands afford many delightful locations for summer homes and resorts. Lake Memphremagog, on the northern boundary, lies 470 ft. above the sea and is noted for its picturesque setting. It is about 30 m. long and from one to 4 m. wide. There are numerous other small lakes and ponds lying wholly within the state. Of these Lake Bomoseen in Rutland County and Willoughby Lake in Orleans County are the largest.

Climate. Vermont has long severe winters, and cool, comfortable summers, but sudden changes of temperature are frequent at all seasons. The mean temperature for the entire year is 43° F.; for January, the coldest month, it is only 17°; for July, the warmest month, it is 68° F. The eastern section of the state is colder than the western, and the central or most rugged section is still colder. The mean annual precipitation for the entire state is about 38.5 in.; the average annual snowfall for all sections is about 85-90 inches. In the Connecticut and Hudson-Champlain valleys the winds are usually from either the north or the south; but in many of the smaller valleys the prevailing winds are from the northwest.

Agriculture. Vermont is chiefly an agricultural state and utilizes for farming most of the land adapted to that purpose. According to the reports of the United States Census Bureau 79.9 per cent of the state's area is included in farms, and of the farm acreage 35 per cent is

reported as improved land. On the higher elevations the soil is stony and sterile, but in the valleys and on many of the lower hills it is quite productive. The best soils are in the west section. The competition of the rich western farm lands has made the agriculture of Vermont develop further toward specialization in dairying and the raising of live stock. The horses of Vermont are among the best known of American racing stocks, and include the Morgan Messenger, and Black Hawk stocks. Hay and forage are the most important crops. Cereals are relatively unimportant.

Forests. The woodland area of Vermont originally included forests of white pine, spruce, hemlock, and some hardwoods. The most valuable of the timbers, white pine, is no longer commercially important. The forest area is estimated at 43 per cent of the total land area of the state. The annual output of maple sugar is nearly one-third the total production of the United States. The butter and cheese made in Vermont are of superior quality.

Minerals. Vermont is rich in quarries of granite, marble, and slate, which are extensively worked. Steatite, verd-antique, sulphuret of iron, manganese, kaolin, and iron exist.

Fisheries. Lake Champlain furnishes the only commercial fishing grounds in the state, with the exception of small catches of white fish in some of the smaller lakes. The most valuable fish taken from Lake Champlain are the wall-eyed pike and pickerel.

Manufactures. Marble and stone working, the manufactures connected with the lumber industry, and the foundry and machine-shop industry, represent the leading manufacturing interests of Vermont. Next in order of importance are the manufacture of worsted and woolen goods, paper and wood-pulp, butter, cheese, and condensed milk, furniture, patent medicines, men's clothing, and hosiery and knit goods.

Education. The public schools of Vermont are open to all children between the ages of five and twenty, and attendance for twenty-six weeks is made compulsory for those who are between the ages of eight and fifteen. The schools are organized under a township system and are under the supervision of a state superintendent of education, elected biennially by the General Assembly. Local schools are under union superintendents, and in a few cases under town superintendents. The chief institutions for higher instruction are the University of Vermont; and State Agricultural College, at Burlington; Middlebury College, at Middlebury; Norwich University, at Northfield; and the state normal schools at Randolph, Johnson, and Castleton.

Government. Vermont is governed under the constitution of 1793 and its amendments. All citizens of the United States residing in Vermont are citizens of the state. The right of suffrage is confined by the constitution to adult male citizens who have resided in the state for one year. Women have the right to vote in all

elections relating to schools and school officers in cities, towns and graded school districts, and also the right to be elected to any local school position or to the office of township clerk.

EXECUTIVE. The executive officers of the state are a governor, a lieutenant-governor, a secretary of state, a state treasurer, and an auditor of accounts, all elected by popular vote. In addition to the foregoing are an inspector of finance, a commissioner of taxes, a superintendent of education, a fish and game commissioner, three railroad commissioners, and various boards and commissions, some members of which are elected by the General Assembly, while others are appointed by the governor with the advice and consent of the Senate. All elections and appointments are biennial. The governor, whose term of office covers a period of two years, has restricted powers of appointment and pardon, and a veto power which may be set aside by a majority vote in each house of the legislature. **LEGISLATIVE.** The legislative department, or General Assembly, consists of a Senate and a House of Representatives. Members of the Senate are apportioned among the counties according to population, but with the proviso that each county must have at least one senator. Members of the House of Representatives are chosen by townships, each township being entitled to one member. The legislature meets at Montpelier, biennially (odd number years). The length of session is not limited by law. The powers of the two houses are equal except that all measures relating to revenue must originate in the House of Representatives. **JUDICIARY.** The judiciary of Vermont is composed of a supreme court of seven members, a court of chancery, a county court in each county, a probate court in each probate district, and justices of the peace. The judges of the supreme court are elected biennially by the General Assembly, but all the other judicial officers are elected by popular vote. **LOCAL GOVERNMENT.** For the administration of local affairs the state is divided into fourteen counties and two hundred

and forty-five townships. There is no board of supervisors or commissioners as in most of the states, but the county is administered by the assistant judges of the county court. The assistant judges, the sheriff, and the state's attorney are elected annually by popular vote. The county treasurer is elected by the assistant judges. The chief township officials are a moderator, a board of selectmen, a clerk, a treasurer, and a superintendent of schools. Any community containing thirty or more houses may, with the consent of the selectmen of the town, receive a separate village organization. The officials of a village are a clerk, five trustees, a collector of taxes, and a treasurer.

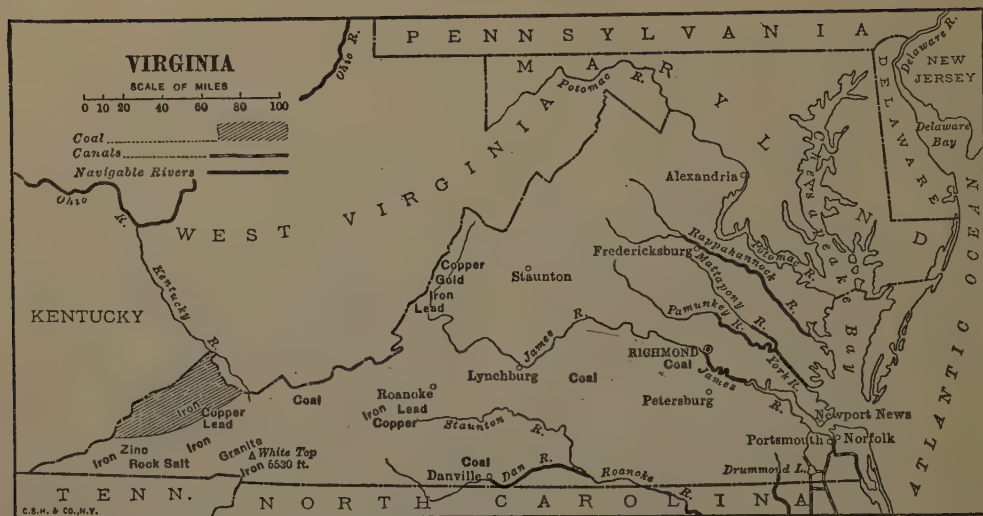
History. Samuel de Champlain, the French governor of Quebec, discovered the lake which bears his name in 1609, and thus laid the basis for the French claim to the region. The French built a fort on Isle La Motte in 1665. Part of the country was claimed by Massachusetts, which planted the first permanent white settlement (1724) at Fort Dummer, in the present town of Brattleboro. Soon after 1750 numerous settlements were made under the auspices of New Hampshire, which also claimed jurisdiction in the region. New York laid claim to the country as far east as the Connecticut River, by virtue of the charter granted to the Duke of York. George the Third decided in favor of New York in 1764, and discord continued until 1771, when the people declared themselves independent and drew up a state constitution. In 1791, Vermont was admitted into the Union, the first state added to the original thirteen. The "Green Mountain Boys" bore a notable part in the War of the Revolution; and in the War of 1812, and again in the Civil War, 1861-'65, the sons of Vermont distinguished themselves by their bravery and devotion to the Union. In the latter war one-half of the able-bodied men in the state were enrolled as soldiers. In a clause of the constitution of 1777 Vermont abolished slavery, the first of the American states to take such action.

VIRGINIA

VIRGINIA, one of the South Atlantic group of states, and one of the thirteen original states of the Union, lies between latitudes $36^{\circ} 30' 28''$ and $39^{\circ} 27' N.$, and longitudes $75^{\circ} 15'$ and $83^{\circ} 40' W.$ It is bounded on the NW. by Kentucky and West Virginia, on the NE. by Maryland, and on the S. by North Carolina and Tennessee. In size Virginia ranks thirty-third among the states of the Union, its area being 42,627 sq. m., of which 2,265 sq. m. represent water surface.

Relief. Four distinct physiographic belts cross Virginia from NE. to SW., with altitudes ranging from sea level along the eastern border, to nearly 6,000 ft. in the mountainous region in the southwestern part of the state. The Coastal Plain province in the east, known as Tide-Water Virginia, extends westward to what is known as

the "fall-line," corresponding very nearly to the meridian of Richmond. This section is deeply indented by bays and estuaries, between which the country is generally low and gently rolling, the surface rising gradually to altitudes of 150 to 350 ft. along the "fall-line." In Tide-Water Virginia is included the detached east shore which lies on the eastern side of Chesapeake Bay. Piedmont Virginia, beginning at the "fall-line," extends westward to the foot of the Blue Ridge Mountains. It forms the central and largest of the physiographic provinces of the state, and its altitudes range from 350 ft. along its eastern border to altitudes of 800 to 1,200 ft. in the west. West of the Piedmont section is the Blue Ridge belt of the state. This mountain range is represented to the northeastward by



the Highlands of the Hudson in New York Schooley Mountain in New Jersey, and South Mountain (also Blue Ridge) of Pennsylvania and Maryland. It is about three miles in width where it enters the state near the Maryland boundary, and gradually spreads out to a width of twenty miles near the North Carolina boundary. It is continued to the southward as far as Alabama. Its highest elevations in Virginia are the Peaks of Otter (4,000 ft.) in Botetourt and Bedford Counties. Immediately to the west of the Blue Ridge is the Great (limestone) Valley of Virginia (a part of the Great Appalachian Valley of the eastern United States), which is nearly twenty miles broad throughout its entire extent, with an elevation varying from 250 ft. above sea level in the north, to more than 1,600 ft. at the southern boundary of the state. The floor of this valley is undulating, and is frequently interrupted by low ridges, and even by mountain masses. The western portion of the state consists principally of the folded Alleghany ridges, between which several small limestone valleys are to be found in the extreme west. Only a small portion of Virginia lies within the Appalachian Plateau. In the limestone regions of the state caverns and natural bridges occur, among which the Luray Cavern and the Natural Bridge are the best known.

Drainage. The greater part of the state is drained by rivers flowing from NW. to SE. across the Blue Ridge, the Piedmont and the Coastal Plain sections. The principal eastward flowing streams from N. to S. are the Potomac, Rappahannock, York, and James, all of which have broad estuaries, navigable for some distance from their mouths. The James River meets the tide at Richmond, about 150 m. from the ocean. Its estuary is more than 50 m. long and nearly 5 m. wide in some places. This estuary connects with Chesapeake Bay through

Hampton Roads. Hampton Roads forms the harbor for the leading ports of the state; Norfolk and Newport News, and affords one of the best anchorages on the Atlantic coast. The great Valley of Virginia is drained to the Potomac in its northern section, by the Shenandoah River. In it, also, are the headwaters of the James, Roanoke, New (Great Kanawah), and Holston Rivers. Through the two last mentioned rivers the waters of the southern part are carried to the Mississippi through the Ohio and Tennessee Rivers, respectively.

Climate. The mean annual temperature of Virginia is about 59°, with a winter mean of 40° and a summer mean of 77° F. The climate is generally free from extremes of heat and cold. The greatest variability in temperature conditions occurs in the Blue Ridge and Appalachian Mountain regions, while only moderate extremes of temperature prevail in the lowlands and lower mountain valleys. The annual rainfall varies from about 35 to 48 inches.

Agriculture. Of the state's entire land area, more than three-fourths is included in farms. As in other eastern states, the total farm acreage and the improved acreage have decreased; but there has been an increase in the number of farms, and a much greater increase in the value of all farm property. The average size of the Virginia farm has decreased continuously from 245.7 acres in 1870, to 105.9 in 1910. The "plantation" which was formerly the common farm unit in a large part of the state, has been divided into smaller parcels of land operated by tenants. The leading farm crops (in the order of their importance as judged by value) are: tobacco, hay and forage, forest products of farms, and potatoes (including sweet potatoes and yams).

Fisheries. The waters of Chesapeake Bay and the estuaries of the rivers furnish impor-

tant fishing grounds, oysters being the most valuable of the fishery products. Next in importance are the catches of menhaden, shad, clams, squeteague and alewives.

Minerals. The most valuable mineral product of Virginia is bituminous coal. The most important coal fields lie in the mountain regions in the southwestern part of the state, though there are also rich deposits in the counties of Henrico, Chesterfield, Goochland, and in parts of Powhatan and Amelia counties; and in Tazewell, Russell, Scott, Buchanan, Wise and Lee counties occur rich deposits of coal, which are very valuable because of their proximity to vast deposits of iron ores. There are deposits of iron ore in the Alleghanies and western foot hills of the Blue Ridge.

Forests. The woodland area of Virginia is equal to over 50 per cent of the area of the state. The mountain regions grow pine, hardwood and hemlock. The Piedmont region produces oaks with some pine. Most of the pine of the mountain region has been cut, and all commercial timbers are rapidly disappearing.

Manufactures. The natural advantages of Virginia are favorable to the development of manufacturing in the state and there has been a considerable advance during recent years in most of the manufacturing industries. Although a few industries greatly predominate, the most important (arranged in the order of the value of products) are: lumber and timber products, tobacco manufactures, flour and grist-mill products, and railroad cars.

Education. Virginia has a free public school system, which is administered by a state board of education, a superintendent of public instruction, division superintendent, and district and county school boards. The state board of education consists of the governor; the attorney general; the superintendents of public instruction, who is *ex officio*, its president; three experienced educators chosen quadrennially by the Senate from members of the faculties of the leading schools of the state; and two division superintendents, one from a county and one from a city, chosen biennially by the members of the board. All children between the ages of eight and twelve "are required to attend a public school at least twelve weeks in the year (six weeks consecutively) unless excused on account of weakness of mind or body, unless the child can read and write and is attending a private school, or unless the child lives more than two miles from the nearest public school and more than one mile from an established public school wagon road." At the head of the educational institutions of the state is the University of Virginia, founded in 1817 and opened in 1825; and among other leading schools may be mentioned the State Female Normal School, at Farmville; the Virginia Normal and Industrial Institute, at Petersburg; two State Normal and Industrial schools for Women, one at Harrisonburg, and the other at Fredericksburg; the

Virginia Agricultural and Mechanical College and Polytechnic Institute, at Blacksburg; the Virginia Military Institute, at Lexington; and the College of William and Mary, at Williamsburg. Among the institutions of higher learning which are not under state control are: Washington and Lee University (non-sectarian), at Lexington; Hampden Sidney College (Presbyterian), at Hampden-Sidney; Richmond College (Baptist), at Richmond; and Randolph-Macon College (Methodist Episcopal), at Ashland.

Government. Virginia is governed under the constitution adopted in 1902. The right of suffrage belongs to any male citizen of the United States, twenty-one years of age or over, who has been a resident of the state for two years, of the county, city or town for one year, and of the election precinct for thirty days next preceding the election. For registration after 1904, one must have paid all state poll taxes assessed against him for the three years immediately preceding his application, unless he is a veteran of the Civil War; and unless he is physically unable he must "make application in his own handwriting, without aid, suggestion or memorandum, in the presence of the registration officers, stating therein his name, age, date, and place of birth, residence and occupation at the time and for two years next preceding, whether he has previously voted, and, if so, the state, county and precinct in which he voted last;" and must answer questions relating to his qualifications. **EXECUTIVE.** The governor, lieutenant-governor, attorney-general, secretary of the commonwealth, treasurer, superintendent of public instruction and commissioner of agriculture, are elected for a term of four years; and each new administration begins on the first of February. The governor must be at least thirty years of age, a resident of the state for five years next preceding his election, and, if of foreign birth, a citizen of the United States for ten years. The governor appoints numerous officers with the consent of the Senate, and his veto power extends to items in appropriation bills. **LEGISLATIVE.** The General Assembly consists of a Senate and a House of Delegates. Senators and delegates are elected by single districts (into which the state is apportioned once in ten years according to the population), the senators for a term of four years, the delegates for a term of two years. The qualifications for members of either house or of other branches in the general assembly are those required of an elector, and residence in their district. The general assembly meets regularly at Richmond, on the second Wednesday in January of each even number year, but an extra session may be called by the governor on the application of two-thirds of the members of both houses or whenever the governor thinks the necessities of the state require it. The session is limited to 60 days. **JUDICIARY.** The administration of justice is vested mainly in a supreme court of appeals, circuit courts, city

courts, and courts of justices of the peace. The supreme court of appeals consists of five judges, but any three of them may hold court. They are chosen for a term of twelve years by a joint vote of the Senate and the House of Delegates. The court sits at Richmond, Staunton and Wytheville. The state is divided into thirty judicial circuits. In each of these the circuit judge is chosen for a term of eight years by a joint vote of the Senate and the House of Delegates. In each city having a population of 10,000 or more is a corporation court, the judge of which is chosen for a term of eight years by a joint vote of the Senate and the House of Delegates. Three justices of the peace are elected in each magisterial district for a term of four years. There are also justices of the peace (elected) and police justices (appointed) in cities. In each city having a population of 70,000 or more a special justice of the peace, known as a civil justice, is elected by a joint vote of the Senate and the House of Delegates for a term of four years. **LOCAL GOVERNMENT.** Each county is divided into magisterial districts varying in number from three to eleven. Each district elects a supervisor for a term of four years, and the district supervisors constitute a county board of supervisors, which levies the county taxes, audits the accounts of the county, and manages all county business. Each county also elects a treasurer, a sheriff, an attorney, one or more commissioners of the revenue, each for a term of four years; and a clerk, who is clerk of

the circuit court for a term of eight years. The coroner is appointed by the circuit court for a term of two years. Each magisterial district elects, besides a supervisor and justice of the peace, a constable and an overseer of the poor, each for a term of four years. In accordance with the provisions of the constitution, all communities with a population less than 5,000 are known as towns, and those with a population of 5,000 or more are cities.

History. At Jamestown, in Virginia, in 1607, was planted the first permanent English settlement in North America. One of the leading spirits of the settlement was Capt. John Smith, who became the head of the government, established law and order, and laid the foundations of industrial life. Slavery in America had its beginnings in the Virginia colony in 1619. At the close of the colonial period, Virginia was the most populous and the wealthiest of the thirteen colonies. In the protest against the stamp act, and the encroachment of Great Britain, Virginia took the lead, and in the Revolutionary struggle furnished such noted sons as Washington, Jefferson, Patrick Henry, the Lees, and Madison. At Yorktown, Cornwallis's surrender put an end to the contest. In the Civil War, Virginia furnished the great commander, Robert E. Lee, whose skill, chivalry, and noble characteristics are a priceless heritage of the nation. Of the first twenty-one presidents of the United States, seven were Virginians, and President Woodrow Wilson is also a native of the "Old Dominion."

WASHINGTON

WASHINGTON, one of the Pacific States of the United States, lies between latitudes 45° 32' and 49° N., and longitudes 116° 58' and 124° 48' W. It is bounded on the N. by British Columbia, on the E. by Idaho, on the S. by Oregon, and on the W. by the Pacific Ocean. It has an extreme length from east to west of 360 m., and an extreme width from north to south of 240 miles. In gross area the state ranks nineteenth among the states of the Union (69,127 sq. m., of which 2,291 sq. m. represent water surface).

Coast. The coast-lines of the Pacific and of Juan de Fuca Strait are remarkably even. Columbia River Bay, Willapa Bay, and Grays Harbor are the principal indentations. On Puget Sound and the Strait of Juan de Fuca are numerous good harbors, the principal ones being Olympia, Tacoma, Seattle, Everett, Port Townsend, Anacortes, Bellingham, and Port Angeles.

Relief. Washington is divided from north to south by the Cascade Mountains, which lie at a distance of 120 to 160 m. east of the Pacific Ocean. On the southern border, near the Oregon boundary, this mountain range occupies a tract from 40 to 50 m. in width, and to the northward it widens to 100 m. or more. The general height of the ridges and peaks is about 8,000 ft. above the sea, but there are a number

of snow-capped mountains (extinct volcanoes) which are more than 10,000 ft. high; among these are Mt. Tacoma, or Ranier, (14,363 ft.), Mt. Adams (12,470 ft.), Mt. Baker (10,827 ft.), Glacier Peak (10,436 ft.), and Mt. St. Helens (10,260 ft.). Numerous glaciers are found in this range, and both slopes are cut by deep valleys. The eastern face of the mountains falls off into the dry, sometimes arid, plateau region and desert; on the west the descent is to a land of abundant rainfall and luxuriant vegetation. The range is pierced near its middle by the Columbia River, whose rapids and cascades gave the range its name. The eastern half of the state is occupied in its northern portion by outlying ranges, ridges, and foothills of the Rocky Mountain System. This mountainous section is divided by the Spokane and Columbia Rivers from the Columbia Plateau, which has a general elevation of 1,000 to 2,000 ft. above sea level. In some parts the plateau is marked by numerous coulees or abandoned river channels, some of them 500 to 600 ft. deep, and with very precipitous walls. There are also deep canyons which have been cut by the rivers in their present courses, especially the Snake River and its tributaries. The southeastern corner of the state is occupied by the Blue Mountains which rise about 7,000 ft. above

sea level, and are cut by deep canyons. West of the Cascade Mountains Washington is a region of fertile valleys, mountain ranges and peaks, abundant moisture, and heavy forests. Along the Pacific Coast, the Coast Range extends in broken masses from the southern boundary to the Strait of Juan de Fuca. Its ranges are not over 1,500 ft. in height in the southern part of the state, but they rise to the northward and culminate in Mt. Olympus (8,150 ft.).

Drainage. Eastern Washington and the southern part of the Puget Sound Basin are drained by the Columbia River and its tributaries. This river enters the northeastern corner of the state from Canada, traverses it in a winding course from north to south, forms the greater portion of its southern boundary, and discharges into the Pacific Ocean. It affords ship navigation nearly to the Cascades and, throughout the state, this stream and its chief tributaries, the Snake and the Clarke, afford steamboat navigation, with occasional interruption from rapids. Other principal rivers of eastern Washington are the Spokane, the Okanogan, the Yakima, and the Palouse. A portion of the Puget Sound Basin and a portion of the Coast Range are drained by the Chehalis River. The western slope of the Cascades, most of the eastern slope of the Olympics, and the northern portion of the Puget Sound Basin are drained by a great number of small rivers into the Puget Sound. This great inland sea is an arm of the Pacific Ocean which communicates with Ad-

miral Inlet, Hoods Inlet and the Strait of Juan de Fuca. It affords great facilities for navigation and its shores are remarkably bold and picturesque. The western slope of the Coast Range is drained by several small rivers into the Pacific. On the Cascade Mountains are a number of lakes of glacial origin, the largest of which is Lake Chelan in Chelan County. There are several alkaline lakes or chains of such lakes in the coulees on the Columbia Plateau.

Climate. In western Washington, the ocean influences the temperature and the climate is equable. The mean temperature for July is about 60°, for January 40°, and for the entire year 50° F. In the Puget Sound Basin, cold east winds occasionally cause the winter temperature to fall below zero. In eastern Washington the climate is marked by extremes of temperature, ranging from -30° in winter to 110° and even higher in summer. In the southeastern counties the winters are generally mild and the summers hot. The annual precipitation in western Washington is from 70 to 125 inches. Three-fourths of the rain in this section falls during the wet season from November to April inclusive. There is a heavy snowfall in winter on the mountains. In eastern Washington, the rainfall is, over large areas, reduced to 10 and 15 in., and irrigation is a requisite for agriculture. The average annual snowfall in this part of the state is 40 in. or more. The prevailing winds along the coast are from the west or south; in the Puget Sound Basin from the south; and in eastern Washing-



ton from the southwest, except in the Yakima and Wenatchee valleys. Tornadoes are unknown in the state.

Agriculture. The soils of eastern Washington are chiefly volcanic; those of western Washington are chiefly glacial. The soils of the western coastal portion of the state at the lower elevations consist of silty loams and silty clay loams. The region is characterized by numerous alluvial valleys, where loams and silty clays predominate. The greater part of the agriculture of the region is confined to the alluvial valleys. The Columbia River Basin and the southern part of the Puget Sound Basin are occupied by similar soils. In the northern portion of the Puget Sound Basin the level benches and rolling uplands are occupied by a great variety of gravelly, and sandy loam soil. Alluvial bottoms and partially filled lake basins are numerous in this region. The intermountain valleys in the north-central and northeastern portions of the state consist chiefly of glacial deposits. The soil of the Columbia Plateau is principally volcanic ash and decomposed lava. The total area included in irrigation projects, completed or under way, is 817,032 acres. The leading crops (in the order of their importance as judged by value) are: wheat, hay and forage, oats, barley, potatoes, hops, and corn. The principal wheat producing region is the southeastern portion of the state. The fruit-raising area increases from year to year, and apples, plums, prunes, cherries, and small fruits are extensively grown. The growing of flower bulbs is an increasing industry; the narcissus and tulip bulbs, propagated near Bellingham, flower in Washington, D. C. earlier than bulbs of the same varieties imported from Holland. Floriculture is a growing industry in Washington, and live stock and dairy products are important factors in its agricultural wealth.

Forests. Federal forest reserves are included in ten National Parks; the Chelan, with an area of nearly two and one-half million acres, is the largest. The Puget Sound Basin and the neighboring slopes of the Cascade and Olympic Mountains are noted for their forests of fir and pine. The eastern slopes of the Cascades and most of the Okanogan highlands are clothed with light forests consisting chiefly of yellow pine. The Columbia Plateau is for the most part treeless.

Fisheries. The wonderful salt and fresh waterways of Washington abound in valuable fishing resources. The catch of salmon is particularly important. In the streams trout are very numerous, and there is an abundant supply of herring as well as oulachan, or candle-fish. Oysters, rockfish, turbot, and sole are among other fishery products of the state.

Minerals. The mineral wealth of Washington is large, but its resources are not yet fully developed. The most important of its mineral products is coal, deposits of which are found in no other Pacific Coast State. Next in importance to coal are the clay products. Gold, silver,

and copper are mined in considerable quantities, and lead and zinc are worked. The quarries yield granite, sandstone, marble, and limestone. Antimony, arsenic, molybdenum, tungsten, and platinum are found.

Manufactures. The growth in manufacturing in Washington is the direct result of the development of the state's natural resources. The vast forests of Washington furnish lumber; its streams and bays support the important salmon canning industry; and the extensive grazing ranches and the luxuriant growth of bunch-grass encourage stock-raising, upon which the meat packing and the butter, cheese, and condensed milk industries depend. The most important industries (arranged in the order of the value of products) are: lumber and timber products, flour-mill and grist-mill products, slaughtering and meat packing, and canning and preserving.

Education. Education is free, and compulsory for children from seven to fifteen years of age. The public school system is administered by a state superintendent of public instruction, a state board of education, regents or trustees of higher institutions of learning, a superintendent of the common schools, a board of education in each county, and a board of directors in each school district. The state superintendent is elected for a term of four years; each county superintendent is elected for a term of two years. Washington has three state normal schools—at Cheney, Bellingham, and Ellensburg, respectively. The State College of Washington, at Pullman, for instruction in agriculture, mechanic arts, and natural sciences, includes an agricultural college, an experiment station, and a school of science. The University of Washington, at Seattle, embraces a college of liberal arts, a college of engineering, and schools of law, forestry, mines, and pharmacy. Institutions of higher learning, maintained and controlled by their respective denominations, are: Whitman College (Congregational), at Walla Walla; Gonzago College (Roman Catholic), at Spokane; Whitworth College (Presbyterian), at Tacoma; and the University of Puget Sound (Methodist Episcopal), at Tacoma.

Government. Washington is governed under its original constitution adopted on October 1, 1889, and its amendments. Suffrage is conferred upon all adult citizens of the United States (including women) who have lived in the state one year, in the county ninety days, and in the city, town, ward, or precinct thirty days immediately preceding election, and who are able to read and speak the English language. Excluded from the suffrage are Indians not taxed, idiots, insane persons, and convicts. General elections are held biennially, in even number years, on the first Tuesday after the first Monday in November. **EXECUTIVE.** The chief executive officers are the governor, lieutenant-governor, secretary of state, treasurer, auditor, attorney-general, superintendent of public instruction,

and commissioner of public lands, all of whom are elected for a term of four years; each new administration begins on the second Monday in January. The governor may veto any bill or any item or items of any bill, but his veto may be overridden by a two-thirds vote of the members present in each house. **LEGISLATIVE.** The legislature consists of a Senate and House of Representatives. Senators are elected by single districts for a term of four years, a portion retiring every two years. Representatives are elected from a district for a term of two years. Regular sessions of the legislature are held biennially in Olympia (in odd number years), and begin on the second Monday in January. **JUDICIARY.** Justice is administered principally by a supreme court, superior courts, and justices of the peace. The supreme court consists of nine judges elected for a term of six years, one of those whose term next expires being chosen chief justice. Judges of the superior court (one or more for each county, or one for two or more counties (jointly) are elected for a term of four years. Justices of the peace (one or more in each election precinct) are elected for a term of two years. **LOCAL GOVERNMENT.** The government of each county is vested principally in a board of three commissioners elected by a county at large, for terms of two or four

years. The other county officers are a clerk, a treasurer, an auditor, an assessor, an attorney, an engineer, a sheriff, a coroner, and a superintendent of public schools—each elected for a term of two years. Township government is in force only when adopted by a particular county at a county election. Each township is governed by the electors assembled annually in town meeting and by three supervisors, a clerk, a treasurer, an assessor, a justice of the peace, a constable, and an overseer of highways for each road district. Cities are divided into three classes: the first class including those having a population of 20,000 or more; the second class those having a population between 10,000 and 20,000; the third class those having a population between 1,500 and 10,000.

History. The Strait of Juan de Fuca was discovered in 1592, and explored in 1789. The mouth of the Columbia River was explored by the American Captain Gray in 1792, and further explorations were conducted by Lewis and Clark in 1805. A settlement at the mouth of the Columbia was founded by John Jacob Astor in 1811. The boundary question was settled with Great Britain in 1846. Washington formed part of the territory of Oregon; was organized as a territory in 1853; and was admitted to the Union in 1889.

WEST VIRGINIA

WEST VIRGINIA, the northwesternmost of the South Atlantic group of states of the Union, lies between latitudes 37° 10' and 40° 40' N. and longitudes 77° 40' and 82° 41' W. It is bounded on the NW. by Ohio; on the N. by Pennsylvania and Maryland; on the E. and SE. by Pennsylvania, Maryland and Virginia; and on the SW. by Virginia and Kentucky. Its greatest length from N. to S. is about 240 m., and its greatest breadth from E. to W., is about 265 miles. In size, West Virginia ranks fortieth among the states of the Union; its gross area being 24,170 sq. m., of which 148 sq. m. represent water surface.

Relief. West Virginia is the most irregular in form of all the states of the American Union; nearly all the boundary lines follow the courses of rivers or crests of mountain ridges. To the northward a narrow projection between the Ohio River and Pennsylvania is known as the Panhandle. The state is divided into two distinct physiographic provinces known as the "ridge and valley" belt, and the Allegheny Plateau province. About one-third of the state in the east is traversed from NE. to SW. by the western ridges of the Appalachian system. These ridges are generally parallel, varying in height from 2,500 to 3,000 ft., with numerous summits attaining elevations of 4,000 ft. and more. The culminating point in the state is Spruce Knob (4,860 ft.); other notable summits are: High Knob (4,710 ft.), Big Spruce Knob (4,652 ft.), and Cunningham Knob (4,485 ft.).

The mountainsides are fertile, generally wooded, and present wild, picturesque, and occasionally sublime scenery. The valleys between the ridges, while difficult of access, furnish broad areas of valuable agricultural land. West of the mountain belt is the Allegheny Plateau, comprising about two-thirds of the area of the state, and forming a part of the Great Appalachian Plateau Province which extends from New York to Alabama. This region is much dissected into gorges, canyons, and hills by a network of streams, and has a general elevation of 1,000 to 2,500 ft., but slopes westward to the Ohio River, where the hills attain elevations of 500 to 800 feet.

Drainage. In the NE. the streams are tributary to the Potomac River, but west of the main Allegheny ridge, the entire state is drained to the Ohio River. The Shenandoah River flows through a small section of the state in the N. E., and the Potomac rises by several forks in the N. The principal tributaries of the Ohio are: the Big Sandy, Guyandotte, New (Great Kanawha), the Little Kanawha and Monongahela, streams that are navigable to a considerable extent, most of them having been artificially improved.

Climate. As the state has a range of over 4,000 ft. in altitude, its climate varies considerably in different localities. Mean annual temperatures range from 48°-50° F. along the southeastern boundary, to 56° in the southwestern section and 43° in the northern Panhandle. The



highest recorded temperature for the state is 107° , the lowest, -35° F. Temperatures above 100° , and below -15° are rare. In the eastern or mountainous section the annual precipitation is over 50 in.; in other sections of the state it varies from 35 to 40 in. Snows are frequent during the winter, and sometimes deep in the higher plateau and mountain districts. The prevailing winds are from south to west.

Agriculture. West Virginia is primarily agricultural; the valleys, the hillsides, and the ridges are generally fertile, and the mountain glades afford excellent pasture land. The Panhandle is an extremely rich farming country, and the valleys of the SE. abound in rich blue-grass tracts. About two-thirds of the state's entire land area is in farms. Farm acreage decreased slightly in the decade 1900-1910, but the number of farms increased, and the total value of farm property increased nearly 55 per cent in the same period. The leading crops of the state (in the order of their importance as judged by total value) are: corn, hay and forage, wheat, potatoes, tobacco and oats. Live

stock, dairying and poultry interests are extensive and steadily increasing.

Forests. The lumber and timber products are among the most valuable assets of the state, a large part of which is still densely covered with forests of oak, hemlock, spruce, ash, tulip, walnut, poplar, cherry, locust, chestnut and other timber trees.

Minerals. The West Virginia coal field covers more than 17,000 sq. m., and bituminous coal has been found in 51 of the 55 counties. The coal supply is varied and includes excellent grades of splint coal and (except that in Kentucky) the only considerable supply of cannel coal in the United States. Besides the great resources in coal, Virginia has other extensive mining and quarrying industries; petroleum and natural gas are among the most important products of the state. Iron, sandstone, limestone, slate and clays are among the mineral products of commercial value.

Manufactures. West Virginia is in general more a mining than a manufacturing state, but it is, nevertheless, well adapted to the develop-

ment of manufactures. The state is fairly well supplied with railway transportation facilities; the Ohio River, which is of decided commercial importance, forms the greater part of the western boundary of the state, affording cheap and adequate facilities, and many of the numerous mountain streams are utilized for rafting lumber. The vast deposits of coal, the abundance of petroleum and natural gas, the extensive timber areas, and the excellent water-power facilities which are being rapidly developed, are directly responsible for much of the growth in manufactures, which has more than kept pace with the growth of population. The most important of the state's industries (judged by value of product) are: the manufactures of lumber and timber, iron and steel, leather, glass, flour-mill and grist-mill products, and coke.

Education. A law enacted in 1908 requires that the children between eight and fifteen years of age shall attend school twenty-four weeks each year, provided the public school in their district is in session that length of time. Each magisterial district constitutes a school district; for each school district there is a board of education consisting of a president and two commissioners, each elected for a term of four years, and one commissioner for two years. The county supervision of public schools is vested in a county superintendent who is elected for a term of four years. The state supervision is vested in a state superintendent, who is elected for four years. A state board of education constitutes a state board of examiners (for special primary, high school, and professional certificates), and prescribes the course of study. The state maintains six normal schools for whites (at Huntington, Fairmont, West Liberty, Glenville, Shepherdstown and Athens), and two for negroes (at Institute and at Bluefield). At the head of the educational system is the West Virginia University, at Morgantown. The principal institutions of higher education not under state control are: Bethany College (Christian), at Bethany; Morris Harvey College (Methodist Episcopal), at Barboursville; West Virginia Wesleyan College (Methodist Episcopal), at Buckhannon; and Davis and Elkins College (Presbyterian), at Elkins.

Government. West Virginia is governed under a constitution adopted in 1872 with subsequent amendments. All male citizens above twenty-one years of age have the right of suffrage, subject to a residence of one year in the state, and sixty days in the county in which they vote. Paupers, insane, and those convicted of treason, felony or bribery in a previous election are barred "while the disability continues," and no person in the military or naval service of the United States is deemed a resident of the state by reason of being stationed therein. **EXECUTIVE.** The executive department consists of the governor, secretary of state, superintendent of public schools, auditor, treasurer and attorney-general, all elected by the people at

the time of the presidential election, and serving for four years from the fourth of March following. The governor must have been a citizen for five years preceding this election, must have attained the age of thirty years, and is ineligible for reelection during the four years succeeding the expiration of his term. In case of the death or other disability of the governor, the president of the Senate acts as governor, and in case of his incapability, the speaker of the House of Delegates; and these two failing, the legislature on joint ballot elects an acting governor. A new election must be called to fill the vacancy unless the unexpired term is less than one year. The governor appoints, subject to the consent of a majority of the members of the Senate, all officers whose appointment or election is not otherwise provided for. If a vacancy occurs in the court of appeals, or in the circuit court, the governor appoints until the next general election; or, if the unexpired term is less than two years, until the end of the term. The governor may convene the legislature in extraordinary session when he deems it necessary. He may veto a bill, or in case of an appropriation bill, the separate items, but this veto may be overridden by a majority of the total membership of each house. Any bill not returned with objections within five days after presentation becomes a law. An appropriation bill cannot be vetoed after the legislature adjourns. **LEGISLATIVE.** The legislature, consisting of the Senate and the House of Delegates, meets at Charleston, on the first Wednesday in January of the odd years, sessions being limited to 45 days. One-half the membership retires biennially. A senator must be at least twenty-five years of age, and must have been a citizen of the state for five years, and a resident of the district for one year preceding his election. The Senate elects a president, confirms or rejects the nominations of the governor, and acts as a court of impeachment for the trial of public officers, besides sharing in legislative functions. The House of Delegates is composed of eighty-six members, of whom each county chooses at least one. A delegate must be a citizen and have resided one year in the county from which he is chosen. Besides its legislative functions, the House prepares articles of impeachment and prosecutes the proceedings before the Senate. No person holding a lucrative office under the state or the United States, no salaried officer of a railroad company, and no officer of any court is eligible for membership in either house. The length of the legislative session is forty-five days, but it may be extended by a vote of two-thirds of the members elected to each house. No act takes effect until ninety days after its passage, unless two-thirds of the members of each house specifically order otherwise. **JUDICIARY.** Judicial power is vested in a Supreme court of appeals, circuit courts, such inferior courts as may be established, county courts, and justices of the peace. The supreme court of appeal

consists of five judges, elected for terms of twelve years. It holds three terms annually—one at Wheeling, one at Charleston, and one at Charles Town. Nineteen judges, elected for terms of eight years in eighteen circuits, compose the circuit court. In order to relieve the circuit court judges, the legislature has established inferior courts in nine counties of the state. One or two justices of the peace (dependent on population) are elected from each magisterial district. **LOCAL GOVERNMENT.** The county is the unit of local government. The county court has the police and fiscal authority. Other officers are the clerk of the county court, the sheriff, who also acts as tax-collector and treasurer, the prosecuting attorney, one or two assessors, the surveyor of lands, and the superintendent of free schools, all elected for the term of four years. In addition, there are boards appointed or elected by various authorities and charged with specific duties.

History. West Virginia was a part of Virginia until the beginning of the secession movement in 1861. The separation of these states had, however, been agitated before the adoption of the Federal Constitution. West Virginia was settled largely by immigrants who entered by way of Pennsylvania, and the population included Germans, Protestant Irish, and people from the states farther north. Slavery was rendered unprofitable by the difficulties in agriculture caused by the rugged nature of the country, and the climate. Social conditions were, therefore, entirely unlike those of the eastern part of the state, and little sympathy existed between the two sections. At the outbreak of the Civil War, the inhabitants of the northern and western counties remained loyal to the federal government, and in 1863 Virginia was admitted to the Union as a separate state.

WISCONSIN

WISCONSIN, one of the East North-Central States of the Union, lies between latitudes 42° 30' and 47° 4' N., and longitudes 86° 45' and 92° 54' W. It is bounded on the N. by Lake Superior and Michigan; on the E. by Michigan and Lake Michigan; on the S. by Illinois; and on the W. by Iowa and Minnesota. Wisconsin is about 300 m. in length from north to south, and about 250 m. in width, and has an area of

56,066 sq. m., of which 810 sq. m. are water surface. In size it ranks twenty-fifth among the states of the Union.

Relief. The state occupies a central position in the extreme northern portion of the low plateau which constitutes the northern part of the Mississippi Valley. The surface is generally rolling and undulating, with an average elevation of about 1,000 ft. above sea level. Although without great relief, the surface is far from level; there are numerous small, nearly level plains and there is much rough country. The lowest elevations in the state are along the lake shores and in the central part of the state, where the altitudes average 580–600 ft. above sea level. The Fox-Wisconsin depression which extends across the state from Green Bay to the mouth of the Wisconsin River is continuous, except for a mile and a half over the low divide at Portage. In early times this depression formed the route of travel and commerce between the Great Lakes and the Mississippi. The Penokee Range in the northern part of the state contains a number of elevations over 1,500 ft. in height. Rib Hill (over 1,900 ft.) in Marathon County, is probably the highest point in the state. From the northern highlands two ridges of land extend southward into the central portion of the state, dividing the greater part of its area into two main drainage basins. The westernmost of these ridges separates the valleys of the Mississippi and St. Croix Rivers from that of the Wisconsin River. The eastern ridge separates the Wisconsin River basin from the Fox River valley and the streams flowing into Lake Michigan. A line of low elevations, parallel with and about 15 m. south of the Wisconsin River, runs between Madison and the Mississippi. Another ridge, known as the Winnebago escarpment, beginning at Door County peninsula, extends southward along the eastern shore of



Lake Winnebago and gradually subsides in the southern part of the state. The surface topography of the southwestern portion of the state adjacent to the Mississippi River is somewhat dissected and rough.

Drainage. There are no large streams flowing into Lake Superior, and very little drainage in that direction. The main part of the state is drained by the Mississippi and its tributaries. The St. Croix, the Chippewa, and the Black, join the Mississippi north of the mouth of the Wisconsin. The Wisconsin rises on the upper Michigan border and, flowing south and west, enters the Mississippi near Prairie du Chien. It is navigable as far as Portage, some 200 m. above its mouth. The Fox River, with a course of more than 250 m., rises in the south-central portion of the state, flows north and east through Lake Winnebago and thence into Green Bay. Besides the Fox, several smaller streams drain into Lake Michigan. The southern part of the state is drained by a number of streams, which eventually find their way through other rivers into the Mississippi. The rivers of Wisconsin provide numerous and valuable water-powers, which have greatly contributed to the industrial development of the state. In Wisconsin are more than 2,500 lakes, most of them lying in the northern and eastern parts of the state. Of these the largest is Lake Winnebago, with an extreme length of 30 m., and a breadth of 10 m., one of the largest bodies of water lying wholly within any state in the Union. Many of the lakes in the southern and eastern parts of the state are famous summer resorts, notably Lake Geneva, Green Lake, the beautiful "four lakes" near Madison, and the lakes in Waukesha County.

Climate. The climate of the northern and eastern sections is much modified by the influence of Lakes Michigan and Superior, which cover an area of over 60,000 sq. miles. The climate of the whole state, however, is affected more or less by the storms which move eastward along the Canadian border, and also by those which move northward up the Mississippi valley. The winters, especially in the central and northwestern sections, are long and severe and the summers in the central and southwestern sections are very warm; but the air is so dry that cold and heat are less felt here than in more humid climates with less extreme temperatures. The mean annual temperature for the state is 44° F.; the mean for July is 70° and for February, 15° F. The average rainfall is about 32 in., well distributed over all sections of the state. The annual snowfall is 53 in. in the northern section, 36 in. in the middle section, and 40 in. in the southern section. All parts of the state are subject to tornadoes, but they are more frequent in the western section.

Agriculture. There is great diversity in the soils of the state. In much of eastern and central Wisconsin the soils are suited to the production of grass and grain, and in those regions dairying is an important industry. Corn, oats,

barley, and rye are the principal grain crops in central Wisconsin. In addition to the grass and grain, potatoes are extensively grown, and clover-seed constitutes an important crop. In southern Wisconsin, binder tobacco is profitably grown. Along the southern shore of Lake Superior much attention is being given to apple orchards, and considerable tracts of swampy and mucky soils are being drained for the production of cranberries and other special crops. In southwestern Wisconsin the soil constitutes good general farming lands, and some tobacco is grown. The leading crops (in the order of their importance as judged by value) are: hay and forage, oats, corn, barley, potatoes, tobacco, rye, and wheat. The production of orchard fruits is increasing, as is also that of grapes. The raising of live stock, particularly of dairy cows, is an important industry.

Forests. Originally the greater part of what is now Wisconsin was covered with forests, but in the south and west there were quite large areas of rolling prairie land. Along the shore of Lake Michigan and extending inland a quarter of the distance across the state and northward through the Fox River valley, there is a heavy belt of oak, maple, birch, ash, hickory, elm, and some pine. From the northern shores of Green Bay there stretch to the north and west numerous forests of pines, hemlocks, and spruce. Much of the marketable timber has been cut, but there are still quite extensive woodland areas.

Fisheries. Wisconsin has valuable fisheries. The catch of lake trout, herring, and whitefish being (in the order given) the most valuable. The state board of commissioners of fisheries distributes millions of eggs and fingerling. There are state hatcheries at Madison, Bayfield, Oshkosh, Minocqua, Delafield, and Wild Rose.

Minerals. Wisconsin has considerable mineral wealth. Iron is found in the Huronian rocks of the northern part of the state, and near Baraboo, and iron ore is mined at Iron Ridge and Mayville in Dodge County. The Trenton-Galena limestone in the southwestern part of the state has been mined for lead and zinc since the earliest settlement by the French. Building stone of good quality is plentiful. Natural rock, cement, graphite, and petroleum, are also produced. Fresh-water pearls are found in many of the streams. Wisconsin ranks among the leading states in the value of mineral waters sold.

Manufactures. While Wisconsin is largely an agricultural state, the advance in the relative importance of its manufacturing industries as measured by value of its products has been marked. The most important industries (arranged in the order of value of products) are the manufacture of lumber and timber products; foundry and machine-shop products; butter, cheese, and condensed milk; leather, tanned, curried, and finished; malt and malt liquors; flour-mill and grist-mill products; slaughtering, and meat packing; and paper and wood-pulp.

Education. Wisconsin has an excellent free public school system under the supervision of a state superintendent of public instruction, who is chosen by popular vote for a term of four years. A graded system of instruction is provided in country, district, and city schools, high schools and normal schools and the University of Wisconsin. School attendance, for twenty-four weeks per annum in the country and thirty-two weeks in cities, is compulsory for children between seven and fourteen years of age who do not live more than two miles from school by the nearest traveled public highway. Under state control there is a system of teachers' and farmers' institutes. In addition to the state normal schools and the university, the state maintains at Platteville a school of mines. Among the large number of private educational institutions, including schools of collegiate rank, are Beloit College (non-sectarian), at Beloit; Carroll College (Presbyterian), at Waukesha; Lawrence College (Methodist Episcopal), at Appleton; Concordia College (Lutheran), Marquette University (Roman Catholic), and Milwaukee-Downer College (non-sectarian) for women, all at Milwaukee; Milton College (Seventh Day Adventist), at Milton; Northwestern University (Lutheran), at Watertown; Ripon College (non-sectarian), at Ripon; Wayland University (Baptist, co-educational), at Beaver Dam; and many private academies and trade or technical schools, and six industrial schools for Indians.

Government. The original constitution of the state, adopted in 1848 and amended many times since then, is still in force. Wisconsin has universal suffrage for males over twenty-one years of age. There is no property or educational qualification. **EXECUTIVE.** The executive power is vested in a governor and a lieutenant-governor elected for two years. Candidates for either office must be citizens of the United States, and qualified electors of the state. The administrative officers, a secretary of state, a treasurer, and an attorney-general, are elected for two years. A bill vetoed by the governor becomes a law if it is approved by two-thirds of the members in each house. The governor has power to grant reprieves, commutations, and pardons, except for treason, and in cases of impeachment. The lieutenant-governor acts as president of the Senate, with a casting vote only. The secretary of state is *ex officio* auditor. **LEGISLATIVE.** The legislature consists of a Senate and an Assembly. It meets at Madison biennially (odd number years), and the length of session is unlimited by law. The number of assemblymen cannot be less than fifty-four nor more than one-hundred, and the number of senators must be not more than one-third nor less than one-fourth the number of assemblymen. Those eligible to the legislature are all males who are qualified electors in the district to be represented, and who have resided one year within the state. Wisconsin delegates im-

portant legislative power to three commissions, each of which is composed of three members: the railroad commission fixes rates of railroads and public utilities; the tax commission assesses and collects all taxes including the new progressive income tax; the industrial commission administers all laws relating to factory inspection, women's and children's labor organizations, compensations, truancy, free employment offices, minimum wages, marketing of farm products, etc. The latter commission has power to enforce rules of its own making regarding machinery, sanitation, and ventilation. **JUDICIARY.** The judicial power of the state is vested in a supreme court of seven members, elected for a term of ten years, the senior justice being the chief justice; circuit courts of one judge each, except in the second circuit (including Milwaukee) in which the number is greater; probate judges, one elected in each county, except where the legislature confers probate powers on inferior courts; and in towns, cities, and villages, justices of the peace, elected for two years. **LOCAL GOVERNMENT.** Wisconsin has the mixed or township-county system of local government. Town officers, excepting justices of the peace, are elected for one year only, except that in a county having a population of 100,000 or more (Milwaukee County) town meetings are biennial, and all officers are elected for two years. The chairmen of the several town boards of supervisors, with the supervisors of each ward of a city and the supervisors of each village in the county, constitute the county board of special supervisors, and each county elects biennially at the general election in November, a clerk, a treasurer, a sheriff, a coroner, a clerk of the circuit, a district-attorney, a register of deeds, and a surveyor. The county board represents the county in all its business relations. City officers are the mayor, members of the board of aldermen, and other administrative officers and boards. The mayor, aldermen, treasurer, comptroller, justices of the peace, and supervisors, must be elected by the people; but the other officers are filled as the council of each city directs. An act of 1909 provides for the adoption of government by commission in any city of the second, third, or fourth class which votes for this form of government at an election called by a petition signed by twenty-five per cent of the voters at the preceding election for mayor.

History. Wisconsin was opened to wide settlement by French explorers, missionaries, and traders. Among the Frenchmen whose names are associated with its early history are those of Jean Nicollet, Sieur de Radisson, Sieur des Groseilliers, Jacques Marquette, Louis Joliet, René Ménard, Claude Allouez, La Salle, Henri de Tonty, Duluth, and Louis Hennepin. The French claimed, and to a greater or less extent occupied the territory from 1634 until the close of the Seven Years' War in 1760, when it passed to Great Britain. British occupation was brief, and in 1783 it became a part of the

United States, and was included in 1787 in the Northwest Territory; afterward in Indian Territory; in 1809 in Illinois Territory; and in

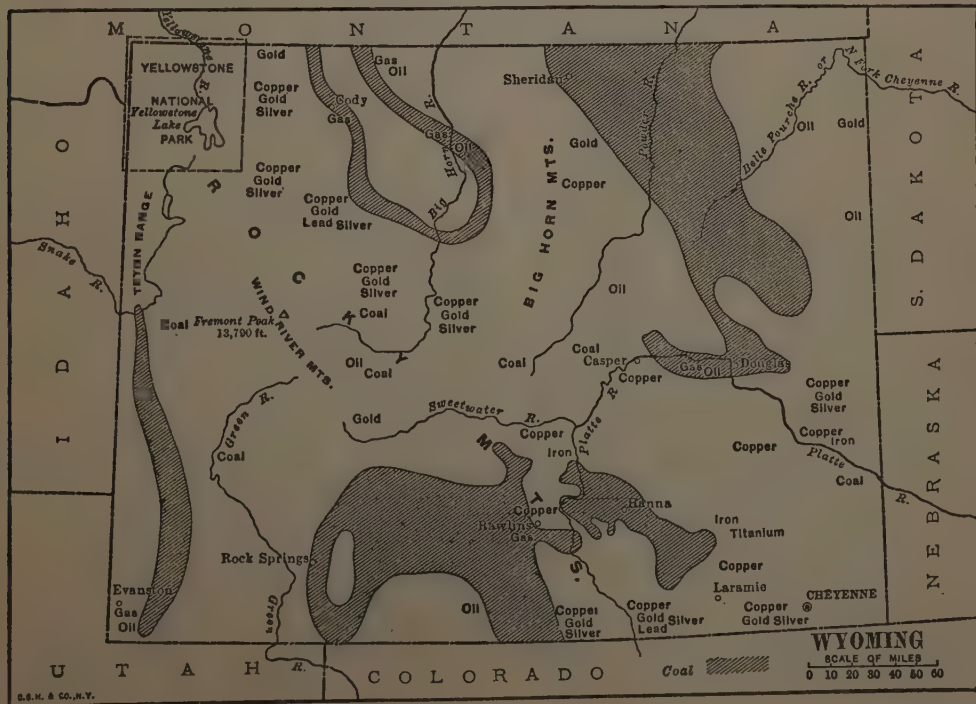
1818 in Michigan Territory. Wisconsin Territory was organized in 1836 and was admitted as a state in 1848.

WYOMING

WYOMING, one of the Mountain States of the United States, lies between latitudes 41° and 45° N., and longitudes 104° 3' and 111° 6' W. It is bounded on the N. by Montana; on the E. by South Dakota and Nebraska; on the S. by Colorado and Utah; and on the W. by Utah, Idaho, and Montana. The state has an extreme length from east to west of about 380 m., and an extreme width from north to south of 276 miles. In gross area it ranks eighth among the states of the Union (97,914 sq. m., of which 320 sq. m. represent water surface).

Relief. The Black Hills of South Dakota extend across the boundary and occupy a small area in the extreme northeastern part of Wyoming. Aside from this Black Hill country, eastern Wyoming is a region of lofty plains, part of the Great Plains Province of the United States. The Great Plains also occupy large areas of the southern and southwestern portions of the state. The plains of the eastern half of the state rise from altitudes of 4,000 ft. along the eastern boundary to about 7,000 ft. along the eastern slope of the Rocky Mountains. The surface is generally flat or gently rolling, barren

of tree growth, but covered with nutritious grasses. Here and there erosion buttes and mesas rise above the general level of the country, and add to the interest and picturesqueness of the region. Ranges of the Rocky Mountain system, entering the state from the northwest, cross it in a southeasterly direction. The Big Horn Mountains constitute the most easterly or Front Range of the system and extend for about 180 m. southward into Natrona County. This range contains many Alpine peaks from 8,000 to 10,000 ft. in height, many mountain lakes and waterfalls, and a number of small glaciers, especially about the base of Cloud Peak (13,165 ft.), its highest summit. In the central and south-central parts of the state in Fremont, Natrona, Sweetwater, and Carbon Counties, occurs a break in the continuity of the Rocky Mountains, the ranges to the northwest being known as the Northern Rockies, those to the south as the Southern Rockies. Here the Great Plains are occupied by many minor mountain groups, volcanic buttes, and lava flows. In this portion of the state is found the broad and relatively low pass which is utilized by the Union



Pacific Railway. The main chain of the Rocky Mountains, known in its central and dominant mass as the Wind River Range, extends in a northwest-southeast direction through a large part of the state and constitutes the waterparting ("Continental Divide") between the streams flowing to the Atlantic and Pacific Basins. The highest points in the state, Gannett Peak (13,775 ft.) and Fremont (13,790 ft.), are found in this range. The extreme northwestern part of the state is occupied by the Yellowstone National Park, about 75 m. in diameter. It has a general elevation of more than 6,000 ft. above sea level, and rises in snow-capped mountains to elevations of 10,000 and 14,000 feet. It is famed for its mountains, its canyons, its geysers and for its wonderful scenery. Just south of Yellowstone Park the Teton Mountains, rising from the low basin of Jackson's Hole to elevations of 10,000 and 11,000 ft., form a striking feature.

Drainage. The greater part of the state is drained by branches of the Missouri River, the most important being the Yellowstone, Big Horn, and Powder Rivers, flowing north; and the Cheyenne and North Platte Rivers, flowing east. Southwest of the center of the state is an area with no outward drainage, and the streams empty into desert lakes, or are lost by evaporation or seepage. West of the "Continental Divide" the state is drained principally by the Green River, flowing southward to the Colorado, and the Snake River, flowing northward and northward to the Columbia River.

Climate. The climate of Wyoming is dry and healthful in nearly all sections of the state, but extremes of both summer and winter temperatures are marked. In the lower Big Horn Valley summer temperatures rise to 95° and 100° F., but at heights of from 6,000 to 7,000 ft. on neighboring ranges, summer temperature seldom rises above 90°, and frosts may occur at any time. Elevations under 6,000 ft. have a mean annual temperature of about 45° F. Winter temperatures as low as -51° have been recorded. Cheyenne, in the southeast, has a winter mean of 27° and a summer mean of 65° F. Except in a few counties in the northeastern part of the state, the rainfall is not sufficient for growing crops without irrigation, the normal annual precipitation ranging from 10 to 15 inches. Irrigation is practised in all sections of the state where water is available.

Agriculture. The lack of water, rather than poverty of soil, renders most of the plains region fit for grazing only. In the mountains ruggedness combines with thin and scattered soil to make these districts of small agricultural value. Of the state's entire land area only slightly more than one-eighth is in farms. On the Great Plains are found great cattle ranges and the live stock interests of the state are extensive. Wyoming ranks first among the states in the number of sheep and the production of wool. The general character of Wyoming agriculture is indicated

by the fact that somewhat more than one-fourth (27.4 per cent) of the total value of crops is contributed by the cereals and about three-fifths (60.6 per cent) by hay and forage; the remainder, representing in value 12 per cent of the total, consists mostly of potatoes and other vegetables. The leading crops of the state (in the order of their importance as judged by value) are: hay and forage, oats, wheat, potatoes, barley, and corn. It should be noted, however, that vegetables, exclusive of potatoes, sweet potatoes, and yams, are more important than corn or barley.

Forests. Forest growth in Wyoming is limited to the highest ranges, the most important forests being in the Black Hills region in the northeast, on the lower slopes of the Big Horn Mountains, and on the Rocky Mountain ranges of the northwestern part of the state, including Yellowstone National Park. The yellow pine is the most important tree in the Big Horn, and small lodge-pole pine makes up the greater part of the northwestern forests. The Douglas spruce and Rocky Mountain white pine are common in the forests of the Medicine Bow Mountains, from which much of the native lumber used in the southern part of the state is secured. Occasional cottonwoods along the streams are the only trees upon the plains.

Minerals. The prosperity of Wyoming is largely dependent on its mineral resources. It is one of the leading states in the value of its output of bituminous coal. In nearly every county there are veins of iron ore of varying extent and quality, the most important being at Hartville, in Laramie County; Iron Mountain, in Laramie County, and the Seminole and Rawlins, in Carbon County. Other mineral products of the state are copper, gold, asbestos, soda, silver, lead, gypsum, and stone. The mining product next in value to coal is copper, taken chiefly in Carbon County. There are valuable deposits of petroleum and natural gas in various sections of the state. Sulphur has been found near Cody and Thermopolis. In addition to the hot springs of the Yellowstone region, mention should be made of the large hot springs at Thermopolis and Saratoga, where the water has a temperature of about 133° F.

Manufactures. The manufactures of Wyoming are not of very great importance, the number of establishments and the variety of industries being small. The leading industries (arranged in the order of value of products) are: the manufacture of cars and general shop construction by steam railroad companies, the manufacture of lumber and timber products, and flour- and grist-mill products.

Education. The public schools are under the supervision of a state superintendent of public instruction, county superintendents and district boards. School attendance is compulsory for all children between the ages of seven and fourteen years. The schools are maintained

by the proceeds of school taxes, and an annual income from school funds which are derived principally from public lands. At the head of the educational system is the University of Wyoming at Laramie. Teachers are trained in the normal school, which is carried on in connection with the University of Wyoming. Associated with the University is an agricultural college, a school of mines, a college of mechanical engineering, a school of commerce, a school of music, and a preparatory department.

Government. Wyoming is governed under its first constitution, adopted in 1889, and its amendments. Suffrage is conferred upon both males and females, and the right to vote is given to all citizens of the United States who have attained the age of twenty-one years, are able to read the constitution, and have resided in the state one year and in the county sixty days immediately preceding an election. Excluded from the suffrage are idiots, insane persons, and persons convicted of an infamous crime. **EXECUTIVE.** The executive officers of the state are governor, secretary of state, auditor, treasurer, and superintendent of public instruction—all elected for a term of four years. There is no lieutenant-governor. The governor must be at least thirty years of age and have resided in the state for five years next preceding his election. If the office becomes vacant the secretary of state becomes acting governor. The governor, with the concurrence of the Senate, appoints the attorney-general, the state engineer and the members of the several boards and commissions. He has the power to veto bills, to pardon, to grant reprieves and commutations, and to remit fines and forfeitures; but the board of charities and reform constitutes a board of pardons for investigating all applications for executive clemency, and advising the governor with respect to them. **LEGISLATIVE.** The legislature consists of a Senate and House of Representatives. The number of representatives must be not less than two nor more than three times the number of senators. Senators are elected for four years, one-half the number retiring every two years; representatives are elected for two years. Both senators and representatives are apportioned among the several counties according to their population; each county, however, is entitled to at least one senator and one representative. The legislature meets at Cheyenne biennially, on the second Tuesday in January

(odd number years), and the length of its session is limited to forty days. A two-thirds vote of the members elected to each house is required to override the governor's veto. **JUDICIARY.** The administration of justice in Wyoming is vested principally in a supreme court, district courts, justices of the peace, and municipal courts. The supreme court consists of three justices who are elected by the state at large for a term of three years, and the one having the shortest term to serve is chief justice. It holds two terms annually at the capital, one beginning the first Monday in April, and one beginning the first Monday in October. The state is divided into six judicial districts, and in each of these a district judge is elected for a term of six years. A justice of the peace is elected biennially in each precinct. Each incorporated city or town has a municipal court for the trial of offenses arising under its ordinance. **LOCAL GOVERNMENT.** A board of three commissioners has the care of the county property, manages the county business, builds and repairs the county buildings, apportions and orders the levying of taxes, and establishes the election precincts. The other county officers are a treasurer, a clerk, an attorney, a surveyor, a sheriff, a coroner, and a superintendent of schools, each elected for a term of two years. A justice of the peace and a constable are elected for and by each precinct. Cities and towns are incorporated under general laws.

History. Fort Laramie, near the mouth of the Laramie River, was established in 1834 to control the fur trade of the Arapahoes, Cheyennes, and Sioux. The United States exploring expedition, commanded by John C. Fremont, explored the Wind River Mountains and the South Pass in 1842. From this time the favorite route to the Pacific led through Wyoming, but the aridity of the land and the pronounced hostility of the Indians were not conducive to settlement. For the protection of emigrant trains the United States government built Fort Kearney in 1848, and purchased Fort Laramie in 1849. A Mormon settlement was made on the Green River in 1853. These Mormons afterwards retired to Salt Lake City. Indian hostilities were active from 1851 to 1868. Gold was discovered on the Sweetwater River in 1867, and population increased rapidly. The Territory of Wyoming, with its present boundaries, was organized in 1869. The state was admitted to the Union in 1890.

POPULATION OF THE UNITED STATES

The thirteenth census of the United States was taken by the Bureau of the Census as of April 15, 1910. The total area enumerated includes continental United States, the territories of Alaska and Hawaii, and Porto Rico. The enumeration also includes persons stationed abroad in the military and naval service of the Government (including civilian employees, etc.), who were specially enumerated through the cooperation of the War and Navy Departments.

The following table gives the total population for the area enumerated in 1910. The corresponding census figures for 1900 are also given for purposes of comparison.

AREA	1910	1900
The United States (total area of enumeration).....	93,402,151	77,256,630
Continental United States.....	91,972,266	75,994,575
Noncontiguous territory.....	1,429,885	1,262,055
Alaska.....	64,356	63,592
Hawaii.....	191,909	154,001
Porto Rico.....	1,118,012	953,243
Military and naval service stationed abroad.....	55,608	91,219

*Includes 953,243 persons enumerated in Porto Rico in 1899.

†According to the census of Porto Rico taken in 1899 under the direction of the War Department.

The rate of increase from 1900 to 1910 was 20.9 per cent. for the total area of enumeration and 21 per cent. for continental United States. It should be noted that this table does not cover all the outlying possessions of the United States. Including the population of the Philippines and other possessions, the population living under the American flag is approximately as follows:

Population of the United States and possessions.....	101,100,000
Enumerated at the census of 1910.....	93,402,151
Philippine Islands, 1903.....	7,635,426
Guam, estimated.....	9,000
Samoa, estimated.....	6,100
Panama Canal Zone, estimated.....	50,000

*The census of 1911 for Philippines gives 8,368,427.

†The census of 1911 for Panama Canal Zone gives 154,255.

The population of continental United States is 91,972,266. Compared with the population of 75,994,575 in 1900 this represents an increase during the past decade of 15,977,691, or 21 per cent. The rate of increase was slightly greater than during the preceding decade, 1890-1900, when it was 20.7 per cent.

AREA AND POPULATION OF CONTINENTAL U. S. SINCE FIRST CENSUS

Census Year	Gross Area Square Miles	Population	Increase Over Preceding Census	Adjusted per-centages Increase
		Number	Per cent.	
1910.....	3,026,789	91,972,266	15,977,691	21.0
1900.....	3,026,789	75,994,575	13,046,861	20.7
1890.....	3,026,789	62,947,714	12,791,931	25.5
1880.....	3,026,789	50,155,783	11,597,412	30.1
1870.....	3,026,789	38,558,371	7,115,050	22.6
1860.....	3,026,789	31,443,321	8,251,445	35.6
1850.....	2,997,119	23,191,876	6,122,423	35.9
1840.....	1,792,223	17,069,453	4,203,433	32.7
1830.....	1,792,223	12,866,020	3,227,567	33.5
1820.....	1,792,223	9,638,453	2,398,572	33.1
1810.....	1,720,122	7,239,881	1,931,398	36.4
1800.....	892,135	5,308,483	1,379,269	35.1
1790.....	892,135	3,929,214		

RANK OF TWENTY-FIVE LARGEST CITIES

Cities	1910	Population 1900	1890
New York, N. Y.....	1 4,766,883	1 3,437,202	1 2,507,414
Chicago, Ill.....	2 2,185,283	2 1,698,575	2 1,099,850
Philadelphia, Pa.....	3 1,549,008	3 1,293,697	3 1,046,964
St. Louis, Mo.....	4 687,029	4 575,238	4 451,770
Boston, Mass.....	5 670,585	5 560,892	5 448,477
Cleveland, O.....	6 560,663	7 381,768	9 261,353
Baltimore, Md.....	7 558,485	6 508,957	6 434,439
Pittsburgh, Pa.....	8 533,905	11 321,616	12 238,617
Detroit, Mich.....	9 465,766	13 285,704	14 205,876
Buffalo, N. Y.....	10 423,715	8 352,387	10 255,664
San Francisco, Cal.....	11 416,912	9 342,782	7 298,997
Milwaukee, Wis.....	12 373,857	14 285,315	15 204,468
Cincinnati, O.....	13 363,591	10 325,902	8 296,908
Newark, N. J.....	14 347,469	16 246,070	16 181,830
New Orleans, La.....	15 339,075	12 287,104	11 242,039
Washington, D. C.....	16 331,069	15 278,718	13 230,392
Los Angeles, Cal.....	17 319,198	36 202,479	56 50,395
Minneapolis, Minn.....	18 301,408	19 102,718	17 164,738
Jersey City, N. J.....	19 267,779	17 206,433	18 163,003
Kansas City, Mo.....	20 248,381	22 163,752	23 132,716
Seattle, Wash.....	21 237,194	48 80,671	69 42,837
Indianapolis, Ind.....	22 233,650	21 169,164	26 105,436
Providence, R. I.....	23 224,326	20 175,597	24 132,146
Louisville, Ky.....	24 223,928	18 204,731	19 161,129
Rochester, N. Y.....	25 218,149	24 162,608	21 133,896

CITIES OF FASTEST GROWTH, 1900 TO 1910

Rank.	City	Population 1910	Pr. ct. inc. 1900-1910
1.	Oklahoma City, Okla.....	64,205	539.7
2.	Muskogee, Okla.....	25,278	494.2
3.	Birmingham, Ala.....	132,685	245.4
4.	Pasadena, Cal.....	30,291	232.2
5.	Los Angeles, Cal.....	319,198	211.5
6.	Berkeley, Cal.....	40,434	206.0
7.	Flint, Mich.....	38,550	194.2
8.	Seattle, Wash.....	237,194	194.0
9.	Spokane, Wash.....	104,402	183.3
10.	Fort Worth, Texas.....	73,312	174.7
11.	Huntington, W. Va.....	31,161	161.4
12.	El Paso, Tex.....	39,279	146.9
13.	Tampa, Fla.....	37,782	138.5
14.	Schenectady, N. Y.....	72,826	129.9
15.	Portland, Ore.....	207,214	129.2
16.	Oakland, Cal.....	150,174	124.3
17.	San Diego, Cal.....	39,578	123.6
18.	Tacoma, Wash.....	83,743	122.0
19.	Dallas, Tex.....	92,104	116.0
20.	Wichita, Kan.....	52,450	112.6
21.	Waterloo, Iowa.....	26,693	112.2
22.	Jacksonville, Fla.....	57,699	103.0

AREA OF UNITED STATES

Accession	Gross area (sq. mi.)	Accession	Gross area (sq. mi.)
CONTINENTAL U. S. ..	3,026,789	OUTLYING POSSESSIONS	716,517
Area of U.S. in 1790 ¹	892,135	Alaska, 1867	590,884
Louisiana Pur., 1803	827,987	Hawaii, 1898	6,449
Florida, 1819	58,666	Philippines, 1899 ..	115,026
Territory gained by Treaty with Spain, 1819	13,435	Porto Rico, 1899 ..	3,435
Texas, 1845	389,166	Guam, 1899	210
Oregon, 1846	286,541	Samoa, 1900	77
Mex. Cession, 1848	529,189	Panama Canal Zone, 1904	436
Gadsden Pur., 1853 ..	29,670		

¹Includes the drainage basin of the Red River of the North, not a part of any acquisition, but previously considered a part of the Louisiana Purchase.

POPULATION OF STATES AND TERRITORIES

STATES AND CAPITALS	POPULATION			PER CENT OF INCREASE		DENSITY
	1910	1900	1890	1900 to 1910	1890 to 1900	PER SQ. MILE
Alabama.....Montgomery.....	2,138,093	1,828,697	1,513,017	16.9	20.9	41.7
Arizona.....Phoenix.....	204,354	122,931	59,620	66.2	106.2	1.8
Arkansas.....Little Rock.....	1,574,449	1,311,564	1,128,179	20.0	16.3	30.0
California.....Sacramento.....	2,377,549	1,485,053	1,203,130	60.1	22.4	15.3
Colorado.....Denver.....	799,024	539,700	412,198	48.0	30.9	7.7
Connecticut.....Hartford.....	1,114,756	908,420	746,258	22.7	21.7	231.3
Delaware.....Dover.....	202,322	184,735	168,493	9.5	9.6	103.0
Dist. of Columbia.....	331,069	278,718	230,392	18.8	21.0	5,517.8
Florida.....Tallahassee.....	752,619	528,542	391,422	42.4	35.0	13.7
Georgia.....Atlanta.....	2,609,121	2,216,331	1,837,353	17.7	20.6	44.4
Idaho.....Boise.....	325,594	161,772	84,385	101.3	91.7	3.9
Illinois.....Springfield.....	5,638,591	4,821,550	3,826,351	16.9	26.0	100.6
Indiana.....Indianapolis.....	2,700,876	2,516,462	2,192,404	7.3	14.8	74.9
Iowa.....Des Moines.....	2,224,771	2,231,853	1,911,896	a0.3	16.7	40.0
Kansas.....Topeka.....	1,690,949	1,470,495	1,427,096	15.0	3.0	20.7
Kentucky.....Frankfort.....	2,289,905	2,147,174	1,858,635	6.6	15.5	57.0
Louisiana.....Baton Rouge.....	1,656,388	1,381,625	1,118,587	19.9	23.5	36.5
Maine.....Augusta.....	742,371	694,466	661,086	6.9	5.0	24.8
Maryland.....Annapolis.....	1,295,346	1,188,044	1,042,390	9.0	14.0	130.3
Massachusetts.....Boston.....	3,366,416	2,805,346	2,238,943	20.0	25.3	418.8
Michigan.....Lansing.....	2,810,173	2,420,982	2,093,889	16.1	15.6	48.9
Minnesota.....St. Paul.....	2,075,708	1,751,394	1,301,826	18.5	34.5	25.7
Mississippi.....Jackson.....	1,797,114	1,551,270	1,289,600	15.8	20.3	38.8
Missouri.....Jefferson City.....	3,293,335	3,106,665	2,679,184	6.0	16.0	47.9
Montana.....Helena.....	376,053	243,329	132,159	54.5	84.1	2.6
Nebraska.....Lincoln.....	1,192,214	1,066,300	1,058,910	11.8	0.7	15.5
Nevada.....Carson City.....	81,875	42,335	45,761	93.4	a7.5	.7
New Hampshire.....Concord.....	430,572	411,588	376,530	4.6	9.3	47.7
New Jersey.....Trenton.....	2,537,167	1,883,669	1,444,933	34.7	30.4	337.7
New Mexico.....Santa Fe.....	327,301	195,310	153,593	67.6	27.2	2.7
New York.....Albany.....	9,113,614	7,268,894	5,997,853	25.4	21.2	191.2
North Carolina.....Raleigh.....	2,206,287	1,893,810	1,617,947	16.5	17.1	45.3
North Dakota.....Bismarck.....	577,056	319,146	182,719	80.8	74.7	8.2
Ohio.....Columbus.....	4,767,121	4,157,545	3,672,316	14.7	13.2	117.0
Oklahoma.....Oklahoma City.....	1,657,155	b 790,391	b 258,657	b 109.7	b 205.6	23.9
Oregon.....Salem.....	672,765	413,536	313,767	62.7	31.8	7.0
Pennsylvania.....Harrisburg.....	7,665,111	6,302,115	5,258,014	21.6	19.9	171.0
Rhode Island.....Providence.....	542,610	428,556	345,506	26.6	24.0	508.5
South Carolina.....Columbia.....	1,515,400	1,340,316	1,151,149	13.1	16.4	49.7
South Dakota.....Pierre.....	583,888	401,570	328,808	45.4	22.1	7.6
Tennessee.....Nashville.....	2,184,789	2,020,616	1,767,518	8.1	14.3	52.4
Texas.....Austin.....	3,896,542	3,048,710	2,235,523	27.8	36.4	14.8
Utah.....Salt Lake City.....	373,351	276,749	207,905	34.9	33.1	4.5
Vermont.....Montpelier.....	355,956	343,641	332,422	3.6	3.4	39.0
Virginia.....Richmond.....	2,061,612	1,854,184	1,655,980	11.2	12.0	51.2
Washington.....Olympia.....	1,141,990	518,103	349,390	120.4	48.3	17.1
West Virginia.....Charleston.....	1,221,119	958,800	762,794	27.4	25.7	50.8
Wisconsin.....Madison.....	2,333,860	2,069,042	1,686,880	12.8	22.7	42.2
Wyoming.....Cheyenne.....	145,965	92,531	60,705	57.7	52.4	1.5
Continental U. S.....	91,972,266	75,994,575	e 62,622,250	21.0	20.7	.....
Alaska.....Juneau.....	64,356	63,592	32,052	1.2	98.4	.1
Hawaii.....Honolulu.....	191,909	154,001	89,990	24.6	71.1	29.8
Porto Rico.....San Juan.....	1,118,012	c 953,243	.....	.....	.....	325.5
Military and Naval	55,608	91,219	.....	.....	.....	.....
U. S. including dependencies named above.....	93,402,151	76,303,387	e 63,069,756	20.9	(d)	30.9

(a) Decrease. (b) For purposes of comparison the 1900 population figures of Oklahoma and Indian Territory are combined. (c) 1899. (d) In the last line of this table the 1900 and 1890 population figures do not include Porto Rico. (e) Includes population (325,464) of Indian Territory and Indian reservations specially enumerated in 1890 but not included in the general report on population in 1890. (f) The percentages in this column are figured on the basis of the actual county totals in each state exclusive of Indian reservations.

NUMBER OF MALES OF VOTING AGE

The 1910 census for continental United States gives the males of voting age as 26,999,151, and constituting 29.4 per cent. of the entire population (91,972,266). They are divided as follows: Native whites of native parentage, 13,211,731, or 48.9 per cent.; native whites of foreign or mixed parentage, 4,498,966, or 16.7 per cent.; foreign-born whites, naturalized, 3,035,333, or 11.2 per cent.; foreign-born whites, not naturalized, 3,611,273, or 13.4 per cent.; negroes, 2,459,327, or 9.1 per cent.

POPULATION, 1910, BY SEX, RACE AND NATIVITY

POPULATION, 1910, BY SEX, RACE AND NATIVITY

STATE	SEX		RACE, NATIVITY, AND PARENTAGE							
	Male	Female	Native white of native parentage	Native white of foreign parentage	Foreign white	Negro	Indian	Chinese	Japanese	All other
Alabama.....	1,074,209	1,063,884	1,177,457	32,438	18,946	908,275	909	61	3	4
Arizona.....	118,582	85,772	82,480	42,175	46,844	2,067	29,201	1,236	351	1
Arkansas.....	810,025	764,424	1,077,509	36,608	16,913	442,891	460	59	8	1
California.....	1,322,923	1,054,576	1,106,533	635,970	517,319	21,645	16,371	36,197	41,324	2 190
Colorado.....	430,697	368,327	475,136	181,432	126,971	11,453	1,482	360	2,190	71
Connecticut.....	563,641	551,115	395,649	374,546	328,737	15,174	152	4	29	4
Delaware.....	103,435	98,887	127,809	25,873	17,421	51,181	5	68	369	47
Dist. of Col.....	158,050	173,019	166,711	45,066	24,351	94,446	74	184	45	11
Florida.....	394,166	358,453	373,967	35,828	33,851	308,669	8	219	4	1
Georgia.....	1,305,019	1,304,102	1,391,058	25,677	15,081	1,176,987	95	219	4	12
Idaho.....	185,546	140,048	203,604	75,254	40,444	646	3,488	838	1,308	276
Illinois.....	2,911,653	2,726,938	2,600,565	1,724,489	1,201,928	109,041	188	2,104	276	35
Indiana.....	1,383,299	1,317,577	1,230,168	350,747	159,118	60,280	279	249	35	30
Iowa.....	1,148,171	1,076,600	1,303,526	632,182	273,388	15,078	471	15	103	3
Kansas.....	885,912	805,037	1,207,087	292,077	134,719	54,504	2,444	234	50	10
Kentucky.....	1,161,709	1,128,196	1,863,157	124,775	40,023	261,656	780	493	31	85
Louisiana.....	835,275	821,113	776,569	112,728	51,828	713,874	892	90	8	23
Maine.....	377,053	365,318	494,918	135,188	109,911	1,364	892	374	140	2
Maryland.....	644,225	651,121	766,628	191,841	104,176	232,249	688	2,493	140	2
Massachusetts.....	1,655,226	1,711,190	1,103,361	1,170,793	1,058,899	38,042	7,519	239	40	2
Michigan.....	1,454,534	1,355,639	1,224,841	965,217	595,200	17,115	9,053	250	66	2
Minnesota.....	1,108,511	967,197	575,081	941,315	542,857	7,084	1,253	249	2	4
Mississippi.....	905,761	891,353	757,233	19,495	9,391	1,009,487	313	532	91	2
Missouri.....	1,687,838	1,605,497	2,387,909	518,341	228,695	157,452	10,745	1,276	1,593	18
Montana.....	226,866	149,187	162,129	106,811	91,647	1,834	3,502	100	574	29
Nebraska.....	627,782	564,432	642,075	362,353	175,883	7,689	5,240	909	839	12
Nevada.....	52,551	29,324	35,313	20,956	18,102	813	34	64	1	203
New Hampshire.....	216,290	214,282	230,251	103,118	96,560	564	168	1,109	203	252
New Jersey.....	1,286,463	1,250,704	1,009,909	777,859	658,159	89,760	20,573	246	252	14
New Mexico.....	175,245	152,056	255,609	26,331	22,662	1,628	6,046	5,235	1,217	2
New York.....	4,584,581	4,529,033	3,230,154	3,007,507	2,729,660	134,181	7,851	78	59	70
North Carolina.....	1,098,417	1,107,816	1,485,705	8,855	5,953	697,843	6,486	39	46	285
North Dakota.....	317,554	259,502	162,461	251,256	156,138	617	127	574	189	33
Ohio.....	2,424,765	2,332,356	3,033,275	1,024,377	597,255	111,442	74,825	137	43	8
Oklahoma.....	881,573	775,582	1,310,403	94,044	40,088	137,612	5,090	7,359	3,418	2
Oregon.....	384,255	288,510	416,851	135,241	103,002	1,519	1,503	1,749	189	33
Pennsylvania.....	3,942,137	3,722,974	4,222,616	1,806,392	1,438,752	193,908	284	266	33	43
Rhode Island.....	270,359	272,251	159,821	194,646	178,331	9,529	331	56	8	1
South Carolina.....	571,842	763,558	661,970	11,138	6,054	835,843	19,137	120	43	5
South Dakota.....	317,101	266,787	245,665	217,478	100,628	817	373	26	3	14
Tennessee.....	1,103,491	1,081,298	1,654,606	38,367	18,460	473,088	702	575	341	8
Texas.....	2,017,612	1,878,930	2,602,958	361,926	240,012	690,020	1,143	373	2,105	3
Utah.....	196,857	176,494	171,671	131,527	63,404	1,143	26	8	14	186
Vermont.....	182,568	173,388	229,382	75,055	49,861	1,026	539	154	3	3
Virginia.....	1,035,348	1,026,264	1,325,238	37,943	26,628	671,066	10,997	2,706	12,886	186
Washington.....	658,650	483,340	585,401	282,529	241,227	6,058	36	90	3	3
West Virginia.....	644,044	577,075	1,042,107	57,638	57,072	64,173	2,900	10,142	224	34
Wisconsin.....	1,208,541	1,125,319	763,224	1,044,764	512,569	2,235	1,486	244	1,571	56
Wyoming.....	91,666	54,299	80,711	32,497	27,165					
Total.....	47,332,122	44,640,144	49,488,441	18,900,663	13,343,583	9,828,294	265,683	70,944	71,722	2,936

GROWTH OF JEWISH POPULATION

According to a recent report of the Hebrew Sheltering and Immigrant Aid Society 1,496 of Jewish immigrants arriving at the port of New York in 1911 were on their way to points west of the Mississippi. It is to be observed, however, that no less than 475 gave their destination as Missouri—meaning, no doubt, chiefly St. Louis. The entire number of those who were going West, however, was only 4.25 per cent. of the total Jewish immigration of the year.

The Society has published a chart showing facts with regard to the Jewish population of 81 cities in 24 States. The growth

of population in ten years in these 81 cities varied from 100 to 200 per cent. The increase of Jewish population in that period was anywhere from 200 to 800 per cent. Sixty-one cities showed marked increase of Jewish residents, only 26 showed no notable gain.

The table showed that while Duluth had gained 300 per cent., Atlanta 100 per cent., Sioux City 700 per cent., Seattle 400 per cent., Wichita, Kan., 500 per cent., Grand Forks, N. D., 800 per cent.; Portland, Ore., 200 per cent.; Richmond, Va., had gained only 30 per cent., and Charleston, S. C., only 50 per cent.

